The Journal of the American Pharmaceutical Association

Volume II SEPTEMBER, 1913 No 9

Office of Publication, 79-89 North Third St., Columbus, Ohio.

Subscription, $3.00 per annum, within the United States. To Canada, $3.35. To other foreign countries in Postal Union, $3.50 per annum. Single copies, twenty-five cents.

Entered at the Postoffice at Columbus, Ohio, as Second-Class matter.

Papers and communications for insertion in the JOURNAL should be sent to the Editor, James H. Beal, Scio, Ohio. Subscriptions should be sent to the Treasurer, H. M. Whelpley, 2342 Albion Place, St. Louis, Mo.

The Association does not accept the responsibility for the opinions of contributors. Offensive personalities must be avoided.

The Sixty-First Annual Convention

Held at Nashville, Tennessee, August 18-23, 1913

ADDRESS OF PRESIDENT WILLIAM B. DAY.

Precedent has decreed that the President's address shall deal with important matters touching the activities of the Association and influencing its welfare. Fortunately, the facilities afforded through our JOURNAL and the ability of its distinguished editor have greatly lessened or altogether removed the necessity for a lengthy discussion of so great a variety of topics. The editorials and the contributions in the JOURNAL have given the more important of these subjects an extended consideration and have had the great advantage of reaching the entire membership rather than the limited number who are able to attend the annual meeting. I shall therefore present to you only a brief resumé of the endeavors of the association during the past year with a few recommendations intended to point out some of the important matters which await action or decision.

ATTITUDE TOWARD NOSTRUMS.

Custom, long established and widely recognized accepts the pharmacist as the purveyor of medicines to the community. By education and training, he is fitted for this responsible position. Physicians freely admit that it is vain to expect the people to call a doctor for every little ache or pain. That self-medication

has obtained a firm hold in our country cannot be denied. If the druggist refused to supply the popular demand for medicines he would inevitably turn over many of his patrons to charlatans and quacks.

Recognizing these conditions, the question then arises: How far may the druggist go in supplying medicines without trespassing unduly on the rights of the physician and without incurring serious risk of injuring the patient?

Obviously, such medicines as dentifrices, non-poisonous washes and antiseptics might be supplied without scruple. A step further would include liniments, many ointments and other preparations for external use and then simple laxatives and cathartics as well as the so-called domestic remedies.

With some exceptions, especially of those preparations containing dangerous or habit-forming drugs, the standard preparations of the U. S. P. and N. F.

WILLIAM B. DAY, Chicago,
President, 1912-1913.

simply labeled and without exaggerated claims for their virtues might be sold with due caution and judgment.

But what should be our attitude toward the so-called "patent medicines"? These proprietaries are secret in composition and secrecy in formula is frequently accompanied by extravagant therapeutic exploitation.

In some cases, the patient is injured by the formation of drug-habits, in others by the excessive or ill-advised use of powerful drugs, while if no other ill effects are experienced there is often a waste of valuable time devoted to "trying out" a much-vaunted cure, during which the opportunity for successfully combating the disease is lost.

From a purely selfish viewpoint, the druggist is little benefitted by the sale of these proprietaries for they are the favorite excuse for price-cutting and

have done much to demoralize the drug business financially. At best the pharmacist has no opportunity to employ his professional knowledge and skill but merely hands out a package of ready-made medicine of whose composition he knows little or nothing, and perhaps assumes the responsibility for recommending it in the treatment of a disease of whose nature he is equally ignorant. This is exceedingly unfortunate both for the patient and the pharmacist.

At this time we should do no less than emphatically restate our steadfast opposition to nostrums of all descriptions. The American Pharmaceutical Association has constantly opposed quackery and fraud in medicine and should pledge its cordial support to the efforts which the American Medical Association is making to overcome these twin evils.

But whether we are now ready to undertake an investigation of proprietary medicines, I doubt. We are lacking in laboratory facilities and in funds for the carrying on of such work. Our immediate effort should be toward providing a laboratory where these and other investigations might be undertaken.

In this connection it is worthy of note that there has been a world-wide awakening to the dangers of nostrums. Especially in English-speaking countries where heretofore a policy of inactivity has been tolerated, inquiries under government direction have been undertaken and restrictive measures proposed or put into effect. Thus in the Australian commonwealth exaggeration in advertising is prohibited and secrecy of composition is held to be wrong; it is maintained that "any person engaged in the proprietary medicine trade may reasonably be required to manifest in the descriptions and recommendations of a preparation, a knowledge and appreciation of the facts of medical science and practice and that all useful remedies are the product of pharmacologic and related clinical practice."

In Great Britain the effect of the National Insurance Act has been to greatly increase prescription writing with a corresponding decrease in the demand for nostrums.

DISPENSING BY PHYSICIANS.

The increase in the practice of self-dispensing among physicians is deplorable and carries with it an element of risk which the public does not yet appreciate. But there are signs that the tide is turning and that self-dispensing will soon be on the wane. Noteworthy among these signs of a realization on the part of the public of the harmful possibilities of this practice is the new Indiana law which permits the physician to administer but not to dispense, that is leave with the patient, certain narcotic and habit-forming drugs; while in Kansas, physicians' drug-stocks are subject to the same inspection and must conform to the same regulations regarding labeling as are the stocks of pharmacists.

But the strongest endorsement of the pharmacist's claim comes through the regulations governing the application of the National Insurance Act in Great Britain. Under these regulations the status of the physician as the prescriber and the pharmacist as the dispenser is definitely fixed, thus marking an epoch in the history of British pharmacy. In the first annual report of the Commissioners the pharmacists receive a deserved tribute of having been reasonable in negotiation, helpful in administration and satisfactory in actual pharmaceutical service.

While such progress encourages pharmacists to hope for a lessening of the dispensing evil, even the most sanguine do not expect immediate reformation of a practice at once so long established and so widespread.

The superior professional training of the physician affords a prestige which the pharmacist can scarcely hope to attain. It is evident that legislation which would take away from the highly-trained physician a privilege which he now possesses and would confer this privilege exclusively on the pharmacist will not be readily obtained.

An endeavor to force the issue would not only be futile but would provoke the resentment of physicians. Rather must we rely upon the quiet influence of a better education in improving the standing of the pharmacist and in winning over public opinion to this much-deserved reform.

It is neither fair nor consistent to oppose the prerequisite of systematic pharmaceutical training and at the same time criticise pharmaceutical organizations for failing to bring about the abolition of dispensing by physicians. Ought not the pharmacist to put his own house in order first?

DRUG TRADE CONFERENCE.

There has been an awakening of public conscience regarding the growing dangers of an unrestricted traffic in narcotic and habit-forming drugs. Especially has the fearful demoralization attributed to the spread of the cocaine habit called attention to the necessity for its control. State legislation intended to establish a more careful supervision of the sale of cocaine and other narcotic drugs has been seriously weakened by the interstate character of the traffic. The need for Federal control has been emphasized. There was a probability that pharmacists would be subjected to regulations which though well-intended would be practically impossible to comply with. Appreciating the desirability of an anti-narcotic law which would be effective but not oppressive in its provisions, our Association took the initiative and upon its invitation there have been held two meetings of the National Drug Trade Conference, which were attended by delegates from the five allied national associations. These are the American Pharmaceutical Association, the National Wholesale Druggists Association, the National Association of Manufacturers of Medical Products, the American Association of Pharmaceutical Chemists and the National Association of Retail Druggists. As a result of their labors a bill has been prepared which is admirably adapted to tracing the sales of narcotics and their passage through interstate commerce without imposing undue hardship on either manufacturer, wholesaler or retailer.

In this delicate and difficult matter the constructive advantages of the A. Ph. A., embracing as it does within its membership, representatives of all phases of pharmaceutical activity, have been apparent. It is another example of our Association's affording a forum for the discussion of such many-sided problems, for here the delegates from all branches of the drug trade may meet on an equal footing.

We owe a debt of gratitude to Chairman Wallace and Secretary Beal for their arduous and successful efforts in promoting this conference and in securing the cooperation so necessary for the passage of any measure of this kind.

MEMBERSHIP.

I congratulate the Association upon the steady increase in its membership, though I confess to a shade of disappointment that this increase has not been greater. He was a philosopher who said: "It is not so much the position that we occupy on the chess-board of life as it is the direction in which we are moving." And *we* are moving in the right direction, that of progress and success.

The present problem is not only to gain more new members but also to better retain the interest of those already enrolled and to prevent their defection. In the last ten years we have elected to membership approximately 2700 members of whom not more than 1700 retain membership. The loss of fully a thousand

GEORGE M. BERINGER, Camden, New Jersey,
President, 1913-1914.

of these members is too great, though our worthy treasurer, Dr. Whelpley, has been wonderfully successful in his efforts to keep the members paid up and in good standing, and has done much to minimize this loss. Our JOURNAL helps much in maintaining interest, but if we could but prevail on new members to attend at least *one* annual meeting we would have a much better prospect of fixing their allegiance and of assuring their active participation in our work.

CONVENTIONS.

We have had some splendid conventions to which have been devoted an immense amount of time and effort, but we must not be weary of well-doing. We must give our best thought to increasing the interest in and the attendance at

our meetings Let us keep the general and section sessions within the five days' limit and leave the evening for the entertainment feature. At least one day might profitably be devoted to an excursion or an outing. Popular lectures should be provided and in every way the attractiveness of the annual conventions should be enhanced.

Some years ago we forbade advertising in the local program. Since we now accept and solicit advertising for the JOURNAL, I recommend that this ban on advertising in the program be lifted. Local contributors to the entertainment are entitled to some mention such as a card or modest advertisement in the local program affords. Such advertising should of course be subject to the same censorship as the advertisements in the JOURNAL.

As our Association advances in years and attains to a larger growth, we shall have to consider more carefully the locations for our annual conventions. While the advantages of visiting the various sections of our country are unquestionable, yet the effort should be made to hold at least every other meeting at some place convenient to the larger proportion of our members.

PROCEEDINGS.

In an association such as ours, complete unanimity of opinion is scarcely to be anticipated. When an important change in the activities of the association is made, it may be expected that some will regard the change as being for the worse and will regret the passing of the old order. The more striking and important the change, the sharper will be this note of protest.

So we find a considerable number of our members who lament the discontinuance of the annual "Proceedings" heretofore published, notwithstanding our adoption of the more progressive and evidently advantageous practice of publishing the proceedings in the JOURNAL. It would be but irrational extravagance to republish in an annual volume the papers which have already appeared in the JOURNAL, and to do this for no better reason than to accommodate a few who are indifferent or careless in preserving and binding their copies of the JOURNAL. Rather would it be economy to supply such members with a bound volume of the JOURNAL upon the payment of a small fee, sufficient to cover the cost of binding. Not only our JOURNAL, but other journals of real value must be preserved and bound if the subscriber is to get the largest good from them. If we can teach pharmacists to preserve and bind not ours alone but several good journals we shall have accomplished a great deal for pharmacy.

To compare the annual volume of the Proceedings with the JOURNAL is scarcely fair. There is so much in the JOURNAL that was lacking in the Proceedings that the comparison fails. The editorials, the papers presented at the Branches, the abstracts, the Recipe Book and other valuable features are worth as much for reference as the papers presented at the meeting.

But the Report on the Progress of Pharmacy and the list of members, together with the list of officers, the constitution and by-laws, etc., could be published as a Year Book similar to the so-called "1911 Proceedings." I believe this would be an advantage that would be worth the expense which it would entail, and I recommend that it be brought before the Association for a vote.

ASSOCIATION BUSINESS.

From those members who are conversant with our methods of paying bills has come criticism of the delays caused by our present usage. It is evident that much of this delay could be avoided by simpler procedure which would be equally effective in safeguarding our funds.

Quite properly an annual budget is prepared and submitted to the Council. When this budget has been approved, bills drawn against it and certified to by the officer in charge of the particular work for which the expenditure is made ought to be promptly paid without the necessity of reference to a finance committee. The warrants or checks of the Association should be issued and attested by the Secretary, countersigned by the President and signed by the Treasurer. The books of account should be kept by the Secretary, who should watch against overdraft of the budget appropriations. There would seem to be no need for the signature of the Chairman of the Council on these warrants.

Greater expedition in electing new members is desirable. When an applicant has tendered his membership, he should not be kept waiting for six or eight weeks before he is informed that he is accepted. More frequent council letters will be necessary but the added expense will be well repaid.

VOTING BY MAIL.

Evidently the election of officers by the mail ballot has interested our members, since an increasingly large number have availed themselves of the privilege of voting. It would seem feasible to extend this privilege by allowing the members at large to vote on questions of policy. A "little ballot," cast along with the ballot for officers might be employed to settle once for all such questions as the publication of the annual volume of Proceedings. It is my opinion that if we do more of our business by mail, we will hold the interest of our members better and will lessen the number of lapses.

In view of the increased interest in voting, the tellers should be increased to five.

LOCAL BRANCHES.

Our Branches are winning success but they need all the encouragement that can be given them. It has been suggested that a portion of the dues should go to the local branches. I do not believe that our financial condition warrants the adoption of this suggestion at present, nor do I think that the branches require such financial aid. They have now a commission on each new member and most of them have local dues even though small in amount. It would be helpful if the officers of the Association, especially the Secretary, could visit the branches occasionally. Such visits would stimulate the enthusiasm of the members and awaken fresh interest. Secretary Beal has addressed several of the branches with good results and the plan could well be developed further.

During the past year the Cincinnati Branch was successfully inaugurated and gives promise of growth and vigor. We need branches in some other large centers notably Detroit, Milwaukee and Buffalo. Members in these cities are failing to realize the full advantage of their membership through the absence of local branches and the opportunities that would be afforded thereby.

The presidents and secretaries of the local branches should get together at

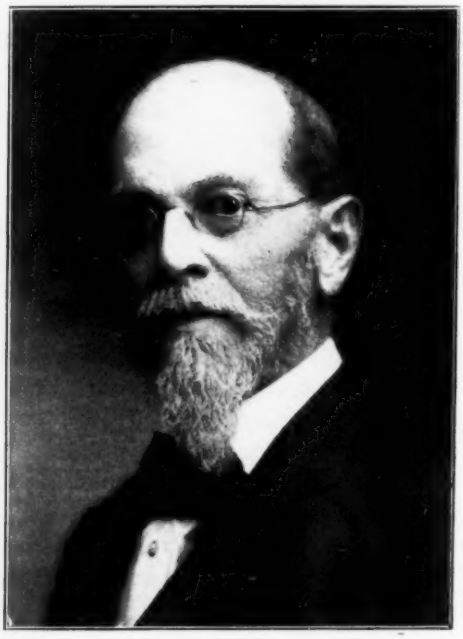
our annual convention and compare notes and plans for increasing the usefulness of their branches.

WOMEN'S SECTION.

The Women's Section makes its maiden bow at this meeting. I bespeak for this new section a cordial welcome and generous assistance in perfecting its organization and initiating its work. Its officers have been active in promoting the interests of their Section as well as of the Association as a whole. An opportunity is now offered to women pharmacists to secure the aid and cooperation of their non-professional sisters who are likewise interested in pharmacy and in the A. Ph. A.

Pharmacy appears to be growing in attractiveness for women, judging by the

THOMAS F. MAIN, New York City,
Honorary President, 1912-1913.



JAMES O. BURGE, Nashville,
Local Secretary.

increasing numbers who are entering it. The old prejudices are disappearing and it is generally admitted that women can and do become capable pharmacists. I predict a long and prosperous career for the new section. May it grow in membership, strength and usefulness!

PROCTER MEMORIAL.

Our committee on Wm. Procter, Jr., Monument Fund has nearly completed its labors and will present a favorable report at this meeting, including tentative plans for the erection of a monument to Professor Procter.

A. PH. A. HOME.

The steady growth of our Association and the constantly increasing scope of its efforts for pharmacy have combined to emphasize the need of a center around which these activities may be grouped and from which they may be guided to greater success. Such a nucleus would be afforded by the proposed A. Ph. A. Home.

Let it be clearly understood at the outset that this much desired home is not a charitable institution! We are not competing with other associations who may wish to establish homes for aged, infirm or indigent druggists. The home that we are striving for is to be the headquarters of a virile organization just awakening to a realization of its power and its manifold possibilities and determined to prove its strength in developing the true pharmaceutical spirit among the druggists of our land!

The building which we hope to erect soon, need not be large nor the site costly. Rather it must be well-located where facilities necessary to the work may be provided to advantage. There should be ground sufficient to permit of future additions. The location should be in a large city, convenient to the majority of the members and where facilities will be afforded for printing and binding the publications of the Association. The quarters must be large enough to provide offices for the JOURNAL, suitable space for a library, a laboratory and a museum, as well as storage rooms for the stock of publications and for other property of the Association. Necessarily the building should be of fireproof construction.

The financial problem, then, is to raise a fund sufficient to purchase a site, erect a building and provide for its maintenance. It has been suggested that $50,000 would be needed for the first two purposes and the possibility that the income from the permanent funds of the Association will take care of the item of maintenance—at least for a time.

The sentiment of the Association is apparently strongly in favor of the projected home and the raising of a sufficient fund should not be exceptionally difficult.

An appeal to our members and to pharmacists generally would no doubt meet with a generous response. The subject should be thoroughly discussed in our sessions and an expression from the House of Delegates should be secured.

THE JOURNAL.

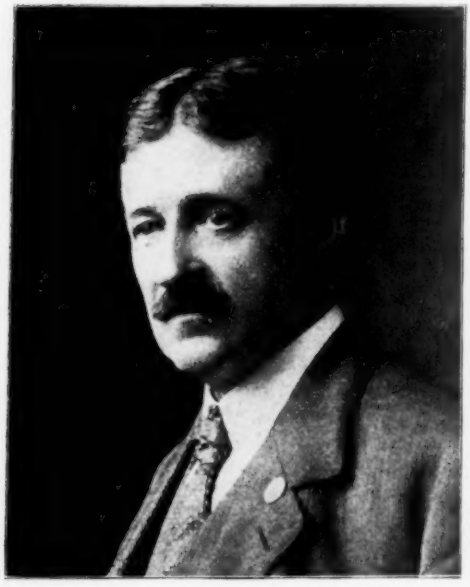
Our JOURNAL has justly received a large measure of praise. It is the exponent not only of our Association, but of the best in American pharmacy. Its finances have furnished an agreeable surprise: the income has exceeded our expectations and the cost of publication is less than we had planned for.

The question arises whether an effort should be made to secure subscribers who are not members in the hope of afterward inducing them to join the Association. Apparently the American Medical Association has followed the plan with great success. If this be done the subscription to the JOURNAL and the year book (if issued) should amount to as much as our annual dues.

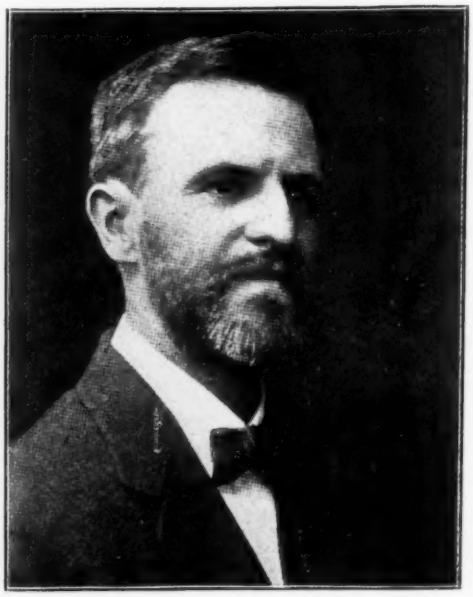
No effort or expense within our means should be spared to add to the attractiveness of the JOURNAL. Nor should its functions as a monthly be restricted

entirely to the immediate interests of the Association. News-letters from the great centers of pharmaceutical activity would be a helpful addition.

The duties of the editor combined with those of general secretary are most arduous. Dr. Beal has discharged these duties with great credit to the Association and himself. But he should have more assistance. An advertising manager would be a paying investment and in recommending that such an officer be employed, I wish it understood that I do not favor in the least the lessening of the restrictions that have been placed around our advertising columns. But an experienced advertising manager would secure for us the advertising support which our JOURNAL merits and should have.



CHARLES M. FORD,
First Vice-President, 1912-1913.



FRANKLIN M. APPLE,
First Vice-President, 1913-1914

More clerical assistance is also needed by the Secretary. I believe that much of the committee work, the expense of which is now borne by the Association, could be economically and efficiently conducted through the Secretary's office. The economies thus effected would go far toward defraying the expense of additional help.

THE PHARMACOPŒIA AND THE NATIONAL FORMULARY.

The new Pharmacopœia is approaching completion, while the new National Formulary has been practically ready for publication for some time. It is generally agreed that these standards should make their appearance about the same time and the suggestion has been made that an arrangement between our Association and the Board of Trustees of the U. S. P. might be possible, whereby the two works should be printed in similar style and with pages of uniform size

and even that a number of copies of the standards bound together in one volume and yet distinct from each other might be published.

If this suggestion is feasible such a combined volume would be of great usefulness and convenience to the pharmacists of the country. I heartily concur in the foregoing suggestion and recommend that it be discussed in our Section on Pharmacopœias and Formularies and that our Committee on National Formulary should give it a careful consideration.

We must not overlook the fact that there will undoubtedly be an immense demand for the new National Formulary and our arrangements for its publication should be such as will permit us to supply this demand promptly. I believe we might well adopt the policy that has proved successful in the publication of the Pharmacopœia, that is, to have one firm publish the National Formulary and another firm act as its sales-agent.

A. PH. A. RECIPE BOOK.

A formulary of unofficial preparations is a pharmaceutical necessity. Such a formulary is the proposed A. Ph. A. Recipe Book, a start upon which has already been made through the efforts of Mr. Raubenheimer and his colleagues. It is greatly to be desired that the opportunity provided by this auspicious beginning may not be lost but that the formulary will receive the assistance and cooperation of our membership and will be carried forward to early completion.

Following the procedure already adopted, these recipes should appear monthly in the JOURNAL, and when a sufficient number have accumulated they could be collected and published as a volume.

STATE PHARMACEUTICAL ASSOCIATIONS.

Closer affiliation with the state pharmaceutical associations is greatly to be desired. Our newly-formed House of Delegates provides a real function for the delegates of the state associations and will undoubtedly result in a more than nominal affiliation with the bodies which they represent. In most of the state associations the office of secretary is fairly permanent. I recommend that we invite the secretaries of these state societies to meet together in connection with our annual convention. At such a meeting details of association work, plans for increasing membership and similar topics could be profitably discussed.

SISTER ORGANIZATIONS.

We extend to our sister organizations, the National Association of Retail Druggists and the National Wholesale Druggists' Association, our cordial good wishes. We appreciate their splendid achievements; we offer our cooperation and our assistance in so far as it can be given them consistently. The great field of pharmacy is as yet almost untouched by organized effort and there is surely not only "glory enough" but work enough for all.

CONFERENCE OF FACULTIES.

The American Conference of Pharmaceutical Faculties, though of slower growth, has developed along rather conservative lines, yet it has made substantial progress. Thirty-five schools are now members of the Conference. With practically all of the strong schools included in its membership the Conference should be able not only to determine reasonable and equitable standards for the

admission and graduation of students, but to provide for the gradual raising of these standards, year by year, until they rank as high as the requirements for entrance to other professions. It is right and proper that the schools should take the initiative in establishing higher educational standards, depending upon the good judgment of pharmacists generally to support their more advanced position. The marked advance in the medical profession during the last decade has been very largely to the increased entrance requirements and the strengthened curricula of the medical schools.

AFFILIATED ASSOCIATIONS—BOARDS OF PHARMACY.

The National Association of Boards of Pharmacy has grown rapidly until it now includes thirty-three active and seven associate members. Its efforts to establish a just, yet broad basis of reciprocity which shall be nation-wide in scope, give promise of success in this long-desired and most important work. Fair-minded pharmacists have long recognized that competency justly determined in one state should be accepted in others, but standards had to be adjusted and examinations made more uniform; these troublesome points have now been largely overcome, partly through friendly conference and kindly criticism between the boards, partly through the very general acceptance of the Syllabus as a basis for the examination.

SYLLABUS.

Among the earliest efforts of our Association was the attempt to bring about a uniformity in the system of instruction in pharmaceutical schools; an attempt which approaches realization in the Syllabus.

The revision of the Syllabus has been completed and opportunity will be afforded at this meeting to inspect and criticize this important work. It has been suggested that the publication of the Syllabus should be assumed by our Association. If the Syllabus Committee agrees to this recommendation, I believe that the transfer would be of advantage to all and that the greatest success for the Syllabus would be possible.

It appears likely that the demand for the Syllabus will assure the sale of a sufficient number of copies to defray the expense of publication and that the financial risk assumed by the Association would not be great.

PHARMACISTS IN THE GOVERNMENT SERVICE.

Our Association has been successful in securing increased rank and pay for the naval pharmacists, who will now have commissions and a rank and pay equivalent to that of second lieutenant. Likewise the pharmacists of the United States Public Health Service will have increased pay and commutation. But notwithstanding the energy displayed by our committee and the generous efforts of Congressman Hughes and Senator Bacon, who introduced and strongly supported the measure advocated by our Association, success has not crowned our attempt to secure even a small measure of justice for the pharmacists of the army, included in the Army Hospital Corps. The members of this corps are placed at a peculiar disadvantage in lacking commissioned officers to push their

rightful claims. Their highest rank is sergeant of the first class. Their opportunities for promotion and increase of pay are considerably less than the other corps of the army, which renders this branch of the service less attractive and results in failure to secure the most desirable enlisted men as recruits, resulting in the inevitable deterioration of this important branch of the service. The sick or wounded officers and soldiers are entitled to the best of care, but under present conditions the army nurse and army pharmacist have less opportunity for rank and pay than does the farrier who cares for a sick mule, surely not a pleasant condition to contemplate. I recommend the appointment of a new committee and the granting of a liberal appropriation to renew with better prospects the effort to secure this meritorious legislation at the next session of Congress.

DECEASED MEMBERS.

"To live in hearts we leave behind is not to die."

Among the score or more of our members who have passed into the Great Beyond since our last meeting there are those who are entitled to our deepest gratitude for their labors in behalf of pharmacy and our Association. While our Council has already adopted suitable resolutions in memory of these men, yet we should not allow this occasion to pass without an expression of our sorrow in losing them and of our respect to their memory. I refer especially to former President Oscar Oldberg, former Honorary-President Ewen McIntyre, and Mr. Thomas P. Cook, well remembered for his services as local secretary at the New York meeting. The others who occupied less conspicuous positions are also deserving of our grateful remembrance.

I ask all those present to rise and remain standing in silence for one minute in respect to the memory of our departed friends.

CONCLUSION.

I am deeply grateful to you, my friends, both for the honor you have conferred upon me and the assistance you have given me during my term in this high office. I regret only that my limited abilities have enabled me to make so small a recompense to you. But I have ill deserved your confidence if my year as President has not given me a wider knowledge of our Association and brought me closer in touch with its efforts and activities than I could otherwise have attained. My hope is to serve you in some humbler capacity during the years to come and to thus discharge in part my obligations to you and to our beloved Association.

In closing I quote from a recent address of President Vincent of the University of Minnesota: "A man can be himself only as he lives the life of cooperation and comradeship. A profession is a collective personality. Each individual makes contributions to the whole but the materials and the inspiration for his own development are drawn from the common store. Only as men have the imagination to see their lives in their wider relationships, only as they lose their petty personal interests in larger and more generous common purposes can they attain to the true possibility of the personal growth."

REPORT OF THE COMMITTEE ON PRESIDENT'S ADDRESS.

The Committee on President's Address respectfully submits the following report:

We recommend all members of the Association to carefully read the whole of the admirable address of the President.

Very many of the suggestions and recommendations in the address, including the most important ones, have already been brought before the Association by

CHAIRMEN OF THE EIGHT LOCAL COMMITTEES IN CHARGE OF THE ENTERTAINMENT OF THE CONVENTION.

Standing: R. W. VICKERS, M. E. HUTTON, C. C. YOUNG, J. B. SAND.
Sitting: IRA B. CLARK E. A. RUDDIMAN, J. O. BURGE, W. R. WHITE.

action of the Council. In these cases no further recommendations are made by this committee.

We endorse the attitude of the President in his opposition to nostrums and quackery. We recommend that the Association go on record as favoring the enactment of prerequisite laws by all the states.

We recommend that a vote of appreciation of their work be given to the members of the Drug Trade Conference from the Association.

We recommend that an alphabetical list of contributors to the entertainment be included in the official programs of the annual meetings, without stating amounts of contributions.

We endorse the President's suggestion that every alternate meeting be held at a place near the center of membership of the Association.

We recommend that the Association furnish a suitable binder for holding a year's numbers of the JOURNAL.

We endorse the President's suggestions regarding the simplification of the business and financial affairs of the Association, but no recommendation is necessary on this matter as the Council has already brought it before the Association.

We believe that it is unnecessary to extend the practice of voting by mail, at this time, to include votes on questions of policy.

We recommend that steps be taken to increase the present board of canvassers from three to five members.

We recommend that the question of remitting a part of the dues of members of local branches to the branches, be referred to the Council for consideration.

We endorse the President's suggestion that the officers, particularly the General Secretary, continue to visit the local branches as often as is practicable.

We recommend that the suggestion that a time be set in the program of the annual meeting for the officers of the local branches to meet and discuss their work be referred to the Council.

We recommend that the Council be instructed to continue consideration of the project of a building to serve as a headquarters for the Association. In this connection this Committee suggests that the prospective structure be called the A. Ph. A. *Building,* hereafter, because of the ambiguity of the word "home" which has been used.

The Committee endorses the suggestions of the President concerning the Journal of the Association, and we recommend that these suggestions on such important matters be referred to the Council for action.

We recommend that the suggestions that the U S. P. and N. F. be issued in uniform style and size of page and that the N. F. be printed by one firm and sold by another, be referred to the Council.

We recommend that the serial publication of the A. Ph. A. Recipe Book in the Journal be continued, the matter of its publication in book form to be taken up later.

The Committee endorses the suggestion that a time be set in the program of the annual meeting at which time the officers of the State Pharmaceutical Associations may meet and discuss their work.

We endorse the recommendation that a committee be continued to further the efforts to secure higher rank for the pharmacists in the U. S. Army, and that the Council make a suitable appropriation of funds for the expenses of that committee.

All of which is respectfully submitted.

T. J. BRADLEY,
E. F. COOK,
F. W. NITARDY,
C. G. MERRELL,
W. R. WHITE,
Committee.

RESOLUTIONS FROM THE HOUSE OF DELEGATES APPROVED BY THE ASSOCIATION.

1. *Resolved,* That the American Pharmaceutical Association request the United States Department of Agriculture and the United State National Museum to cooperate in securing and caring for a collection of authenticated medicinal plants for the purpose of providing accurate and positive decisions of the many questions that are constantly arising concerning the identity and quality of such products.

2. *Resolved,* That the American Pharmaceutical Association ask the New York State Pharmaceutical Association to furnish more light on the plan of pharmacopœial revision referred to in the resolution submitted by the State Association.

3. *Resolved,* That inasmuch as the American Pharmaceutical Association has invited colleges of pharmacy to offer as a prize to students a year's membership in the Association, the Association provide an appropriate certificate to be given to the students meriting the prize membership.

4. *Resolved,* That the American Pharmaceutical Association further the enactment of state legislation, or rulings by boards of pharmacy that will require each pharmacy and drug store to possess a copy of the text of the latest edition of the United States Pharmacopœia and the National Formulary.

5. Resolved, That the American Pharmaceutical Association is unreservedly in favor of the professional education of pharmacists as represented by a college education in pharmacy, of the grade recognized as standard by the American Conference of Pharmaceutical Faculties.

6. *Resolved,* That the American Pharmaceutical Association go on record in favor of legally requiring Methyl Alcohol to be sold under a name that will differentiate it from Ethyl Alcohol or spirits generally, and under a poison label.

7. *Resolved,* That the establishment of permanent official headquarters for the American Pharmaceutical Association is desirable, and commendable.

8. *Resolved,* That we earnestly request our senators and representatives in Congress and instruct our Legislative Committee and our delegates to the National Drug Trades Conference, to urge as strongly as possible the passage of the Bacon-Hughes Bill, which will procure better treatment for the hospital corps of the United States Army.

9. *Resolved,* That the Council be authorized to approve the production of a convenient button or pin style of the official badge of the Association, that may be worn conveniently at all times by members, and that this form of the official badge be distributed to dues-paid members by the treasurer.

10. *Resolved,* That the American Pharmaceutical Association favor the so-called zone system of parcel post, whereunder charge for the transportation of parcels by mail is in proportion to the distance, and that it favor such modification of the present parcel post law as will prevent transportation by mail of prison-made articles of manufacture.

11. *Resolved,* That it is the sense of the American Pharmaceutical Association that in order to minimize the danger of the internal use of poisonous tablets in-

tended for external use only, tablets containing toxic substances in sufficient amount to be dangerous to life if taken internally, should comply with the folfowing requirements:

a. The form, size, markings and color of tablets intended for external use should be distinctive, and the color should preferably be of some water soluble dye, calculated to call attention to the dangerous nature of the tablet when dissolved.

b. Dangerously toxic tablets should be marketed and sold at retail in glass containers only.

c. The labels on such containers should be printed in red on white paper;

CASWELL A. MAYO, New York,
Historian and First Vice-President, 1912-1913.

C. HERBERT PACKARD, East Boston, Mass.,
Third Vice-President, 1912-1913.

should bear the word "poison" in large type, the death's-head symbol, a caution against internal use and against placing the package in the vicinity of medicines to be used internally, and directions for the emergency treatment of accidental poisoning from the use of such tablets.

12. *Resolved*, That the American Pharmaceutical Association recommend to the committees of revision of the United States Pharmacopœia and the National Formulary that they consider carefully the advisability of including in these books of national standards recommendations for appropriate methods of indicating the dangerous character of poisonous tablets.

13. *Resolved*, That the American Pharmaceutical Association go on record in favor of such a revision of the United States patent and trade-mark laws as will tend to prevent the extortion of exorbitant prices for medicinal and chemical

products patented or trade-marked in the United States, but that it is opposed to the provisions of the present measure, known as the Oldfield Bill, as unfair to inventors and manufacturers alike, and as tending to promote monopoly by compelling inventors and manufacturers for self-protection to keep secret the methods and processes for the preparation of newly discovered medicinal substances.

14. *Resolved,* That the American Pharmaceutical Association request of Congress that it revise the existing internal revenue laws so as to provide for a special nominal tax upon the sale of alcohol for medicinal, scientific, mechanical or pharmaceutical purposes, and the sale of alcohol-containing liquids upon prescriptions, the tax-paid stamp issued for such purpose to be different in design and designation from that issued to the retail dealer in alcoholic liquors for beverage purposes.

15. *Resolved,* That the American Pharmaceutical Association continue its affiliation with the National Drug Trades Conference.

16. *Resolved,* That the American Pharmaceutical Association go on record in favor of the supplementing of Federal anti-narcotic legislation by the enactment of effective anti-narcotic laws uniform in all the states.

17. *Resolved,* That the American Pharmaceutical Association hereby record its appreciation of the valuable services of Honorable Francis Burton Harrison, Dr. Hamilton Wright and the members of the National Drug Trades Conference in the preparation of a bill for the Federal supervision of the traffic in habit-forming narcotic drugs.

18. *Resolved,* That the American Pharmaceutical Association endorse and approve the federal measure known as the Harrison Bill, H. R. 6282, providing for the registration of dealers in narcotic drugs as a reasonable and effective measure to provide means of tracing the principal habit-forming narcotic drugs from the time of their introduction into the United States until they reach the hands of the physician and the retail druggist, and that the Association hereby pledge its influence in favor of the enactment of the aforementioned bill.

19. *Resolved,* That the delegates of the American Pharmaceutical Association to the National Drug Trades Conference be instructed to give consideration to the feasibility of amending Section 7 of Regulation 7 under the federal Food and Drug Act so as to allow the sale of no products deviating from official standards.

20. *Resolved,* That the American Pharmaceutical Association recommend to the Committees of Revision of the United States Pharmacopœia and the National Formulary, the introduction and incorporation in the books of official standards such synonyms as will compel uniformity of product and eliminate the opportunity for unfair competition.

21. *Resolved,* That in the opinion of the American Pharmaceutical Association there is a great need for reform in the matter of the exemption of dispensing physicians and the drugs they dispense from the provisions of the state laws relating to the practice of pharmacy, and the Association go on record in favor of the enactment of state legislation tending to bring about this reform.

22. *Resolved,* That in view of the importance of uniformity in pharmaceutical nomenclature, the delegates from this Association to the approaching meeting

of the Eleventh International Pharmaceutical Congress at The Hague, be instructed to present to that Congress a proposal for the establishment of an International Commission on Pharmaceutical Nomenclature to take into consideration the nomenclature of all the drugs, medicines and preparations dealt in by the pharmacist, whether pharmacopœial or non-pharmacopœial, and to carry on an active propaganda throughout the world, with a particular view to the prevention of the adoption of names which through their similarity may have a tendency to cause errors in dispensing.

REPORT OF THE GENERAL SECRETARY AND EDITOR OF THE JOURNAL.

J. H. BEAL.

For the Fiscal Year Ending December 31, 1912.

Financial Accounts in Care of the General Secretary.—As required by the provisions of the By-Laws, most of the financial transactions of the Association are in charge of the Treasurer, who collects and receipts for dues, and has the custody of the Invested and Trust Funds. Those who have observed the very efficient manner in which the Treasurer has discharged the duties of his office will not be inclined to suggest any different arrangement.

The financial accounts in the care of the General Secretary are confined to receipts for sale of the National Formulary, Journal Advertisements and Subscriptions, Proceedings, Badges and Bars.

During the fiscal year ending December 31, 1912, the cash receipts of the General Secretary's office were as follows:

From sales of the National Formulary	$3,520 50
Journal Advertising and Subscriptions	2,667 89
Proceedings	147 64
Badges and Bars	60 87
Miscellaneous	29 64
Total	$6,426 54

Itemized statements of the above receipts and corresponding remittances to the Treasurer are submitted herewith, together with a Report of the Auditing Committee which checked and compared the statements with the books and accounts of the Treasurer.

The cash received by the General Secretary, and remitted to the Treasurer, during the first half of the present fiscal year, ending June 30, 1913, was as follows:

From sale of the National Formulary	$1,311 89
Journal Advertising and Subscriptions	1,667 49
Proceedings	65 51
Badges and Bars	4 75
Miscellaneous	27 00
Total	$3,076 64

Itemized accounts of these receipts will be submitted to the Auditing Committee in regular order, in accordance with the provisions of the By-Laws.

Receipts and Expenditures on Account of the National Formulary.—As shown above, receipts from sales of the National Formulary during the first half of the present fiscal year were $1,311.89, a decrease as compared with the first half of the preceding year of $387.65.

Thus far the expenditures on account of the National Formulary for the present fiscal year have amounted to $615.35, with some bills which have not yet been presented for payment. For the remainder of the present year, and probably for the whole of the next fiscal year, expenditures on account of the National Formulary may be expected to far exceed the receipts from sales, owing to the great expense involved in the preparation of the plates for the revised edition, which will probably be ready for distribution towards the latter part of 1914 or early in the year 1915.

During the year 1912, there were printed and bound 3,500 copies of the National Formulary, most of which were sold during the year 1912. According to the records of the General Secretary there should have been in the hands of the printer, on August 1, the following:

334	Sheets for binding
463	Copies, cloth, plain
133	" " interleaved
82	" sheep, plain
48	" " interleaved
Total....	1,060

Discounts Allowed on National Formulary.—The discounts established when the Third Revision was published, and which are still in force, are as follows:

1 to 10 copies	10%
10 to 50 copies	15%
Over 50 and less than 100 copies	20%
Not less than 100 copies	25%

In addition to the above, the Association prepays transportation on all shipments, which amounts to a very material addition to the discount.

It is the opinion of your General Secretary that when the new edition is issued the rate of discount should be increased to that generally allowed by publishers of technical and scientific books, and that the prepayment of transportaton should be abandoned, except on single copies sold at full retail price, and forwarded by mail. The present system has been productive of considerable dissatisfaction. Many dealers persistently neglect to take into consideration our prepayment of transportation and insist upon having the discount usually allowed upon medical and pharmaceutical books.

Reports of Shortages on the National Formulary.—On several occasions the Secretary has been notified that book dealers were reporting that they could not obtain National Formularies to fill their orders. As far as the Secretary has been able to ascertain, these reports have emanated from several dealers to whom further shipments were refused until their long overdue accounts had been paid. Some of these accounts still remain unpaid, and a list of them will be presented to the Council at this meeting with a request for instructions as to what disposition shall be made of them.

Method of Publishing and Marketing Revised Edition of the National Formulary.—At present, the printing and publication of the National Formulary are

both in the hands of the General Secretary. Orders for five or more copies are filled from the main stock, which is in the care of the printing company, at Lancaster, Pa. Orders for less than five copies are filled from the Secretary's office, at Scio, Ohio.

At the Denver meeting, the General Secretary recommended that future editions of the work should be printed and published by the Association, as at present, but that its distribution and sale should be placed in the hands of a publishing house which is in touch with the book trade, and possesses the equipment for rapidly handling orders large or small. This recommendation is again made.

Under the proposed plan, each copy would bear upon the title page, before

EUGENE G. EBERLE, Dallas, Tex.,
Chairman of the Council.

FABIUS C. GODBOLD, New Orleans,
Vice-Chairman of the Council, 1912-1913.

delivery to the sales agent, a serially numbered coupon. The books thus numbered would be delivered in large lots to the authorized sales agent, who would be responsible for their subsequent distribution, and would assume the risk of collection. The serially numbered coupons would be in the hands either of the Treasurer or General Secretary, and delivered to the printer for pasting in the books before shipment to the sales agent.

This method has been pursued in the manufacture and sale of the United States Pharmacopœia for the past ten years, and has proved eminently satisfactory.

Our Antiquated Financial Methods.—The present method for the payment of bills was established at a time when the Association did not have as many bills in

a year as it may now have in a single month. The method is entirely inadequate and should be changed.

According to the By-Laws, every bill must be scrutinized and approved by seven members, distributed from Boston, Mass., to Dallas, Texas; and this applies even to bills for which appropriations have regularly been made, and which have been ordered paid by the Council. As a consequence, it may require a month to obtain the necessary signatures before a warrant can be drawn upon the treasury.

In my opinion, the signatures of but two officers should be necessary, that of the General Secretary upon the warrant upon the treasury, and that of the Treasurer upon the check issued in consequence of such warrant. I therefore recommend that our By-Laws be modified accordingly.

Membership Campaign.—Since the Denver meeting, a constant compaign for new members has been conducted by the regular Committee on Membership, by the local committees at Nashville, and from the General Secretary's office. Results, while gratifying, have been far from satisfactory. I am convinced that the only thing necessary to increase the membership of the Association to a point that will be commensurate with its importance and its services to pharmacy is the hearty cooperation of all of its present members. If the present members will charge themselves with the duty of making a special campaign for only one year, our membership roll will be doubled.

Membership Committee.—The Report of the Membership Committee will show that the plans and methods of the former Chairman have been continued, with good results, by the present Chairman, Prof. A. H. Clark. After some study of the subject, your General Secretary is inclined to recommend that the present Membership Committee, which is so large as to be unwieldy, be broken up into a number of District Committees, each district to consist of a group of contiguous states, and each committee to have its own chairman.

In addition to district committees, there should also be special committees to appeal to different classes of pharmacists, as, for example, a committee on membership from colleges of pharmacy, one on membership from boards of pharmacy, one on membership of workers in scientific laboratories, one on membership of food and drug chemists, etc.

By such a division of the work the territory would be more carefully canvassed; the members of the committees would feel greater individual responsibility,and the character of applicants could be more carefully scanned.

It is coming to be more and more recognized that membership in the A. Ph. A. is an honorable distinction in pharmacy, and in order that this distinction be maintained it is increasingly necessary that we be careful in the selection of those who are invited to become members, and of those who apply for membership without invitation.

Local Branches.—A new Branch has been established at Cincinnati, and began its activities with a large and enthusiastic membership consisting of the best known pharmacists of that city. Several very successful meetings were held during the spring months, and much is looked for from this Branch in the future.

During the year, the Secretary has also been in correspondence with members in cities where local branches might very profitably be established, and it is quite likely that two, and possibly three, new Branches will be established before the next meeting of this Association.

Editorial Policy of the Journal.—The editorial policy entered upon with the establishment of the JOURNAL has been continued, namely, to make it specifically the organ of the Association, and to confine it mainly to the representation of the Association's important activities. The Editor is still convinced that this is the best policy to pursue, and that the Association should not aim to enter the field of general pharmaceutical journalism; a field already amply filled and ably cultivated. Should the JOURNAL seek to usurp the functions of a general pharmaceutical publication, it would not only require a large editorial and clerical staff, but would naturally need to lessen the amount of space that could be devoted exclusively to Association matters. This subject is referred to for the reason that some few of our members have been inclined to urge upon the Editor the widening of the scope of the publication and the addition of new departments.

In selecting the contents for each number, the Editor has taken into consideration the fact that our Association possesses a very diverse membership, distributed over almost the entire globe, and interested in almost every phase of pharmaceutical work.

Some of our members who are interested in purely scientific pursuits would like to see the JOURNAL devoted exclusively to the publication of scientific and technical papers, while others have offered the suggestion that it be confined mainly to the publication of material relating to commercial or so-called practical pharmacy. For example, one member says, "Let the JOURNAL be confined to purely scientific pharmacy; the other journals supply sufficient information for those who are concerned only with the commercial end of the drug business." Another says, "Cut out the scientific dope, and give us more information on how to make some money out of the drug business."

With neither of these views has the Editor been able to agree, and he has therefore, to the best of his ability, endeavored to make each number of the JOURNAL representative of the diversified interests which the Association represents so that every member might find in each number something of particular interest to him.

Criticisms similar to the above have, however, been few, and the number of commendatory expressions has been far greater than the Editor could reasonably have expected, realizing as he does his lack of preparation for editorial work.

Size and Scope of the Journal.—In 1912 the total number of printed pages, exclusive of advertising, was 1466. During the present year, probably not less than 1600 pages will be required, and it does not seem possible to adequately represent all of the activities of the Association in smaller compass.

The expense of publishing the JOURNAL will be fully dealt with in the report of the Publication Committee, which report will, however, show that the expense has been far less than was originally anticipated and that, as a matter of fact, the JOURNAL is at the present time a paying proposition.

Advertising.—Naturally, with his many other duties and limited clerical help, it has been impossible for the Editor to do much effective work in the solicitation of advertising; nevertheless, the appreciation of the value of the JOURNAL as a publicity medium has constantly grown and is becoming more and more recognized by advertisers to the drug trade. The fact that only the very highest class of advertising is admitted to its columns is recognized as being of itself in the nature of a certificate of merit to the firms which are thus represented. I hereby renew the recommendation made at the Denver meeting, that an advertising solicitor be employed, and that he be one capable of rendering much needed assistance in editorial work.

Permanent Association Headquarters.—During the past year one of the questions proposed by the Editor for general discussion has been that of an Association Home or Permanent Official Headquarters. The proposition seems to have met with quite general favor; literally hundreds of letters dealing with the question having been received; so many, in fact, that the original intention of publishing all of them had to be abandoned for lack of space. The consensus of opinion is as follows:

(1) That the Association should own its official headquarters, consisting of a fire-proof building, providing office rooms, museum, library, storage for the Association archives, and a research laboratory.

(2) That the official headquarters should be located in one of the larger cities, possessed of abundant facilities for printing and binding the Association publications, and with good railroad and postal facilities.

(3) That only the physical maintenance of the building, such as heat, insurance, taxes, and janitor service, should be chargeable upon the general revenues of the Association; and that research activities should be begun and carried on only when sufficient special funds have been accumulated for that purpose.

Out of the multitude of communications received, only one member deemed such a home and laboratory unnecessary. All of the others have favored the proposition, though numerous ones have submitted a caution to the effect that such an establishment should not be entered upon until the Association is well assured of its ability to provide for its proper maintenance.

In view of the general unanimity with which the headquarters proposition has been received, it is the opinion of the General Secretary that it will be advisable to inaugurate, at this present meeting, steps for the collection of funds for the purchase of a site and for the erection, equipment and maintenance of a building. When a sufficient sum has been collected or subscribed for these purposes, it will then be time enough to consider the question of location.

Respectfully submitted,

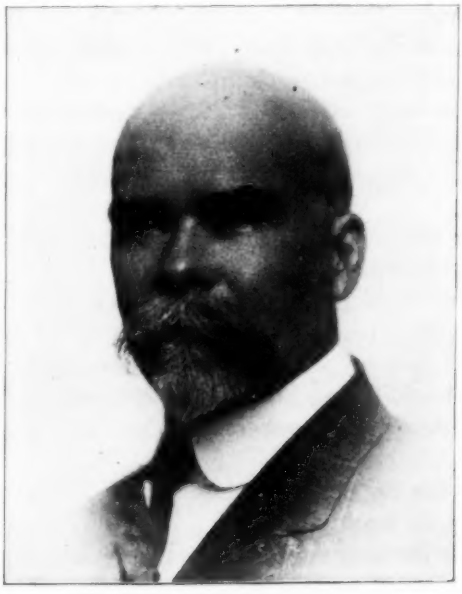
JAMES H. BEAL,
General Secretary.

SOME ADDITIONAL EXPERIENCES OF A TREASURER.

DR. H. M. WHELPLEY, ST. LOUIS, TREASURER A. PH. A.

When assuming the duties of treasurer in 1909, I determined on a course of work intended to test the application of ordinary commercial methods to the collection of A. Ph. A. dues. Owing to a change in the fiscal year and other amendments to the by-laws, it required three years to place my plans in full operation. At the 1912 meeting, I reported satisfactory progress and during the past twelve months I have become fully convinced that the A. Ph. A. membership can be maintained with accounts paid, the same as they are paid with firms with whom our members transact business.

Members Intend to Pay Promptly. I find that the A. Ph. A. members desire to be prompt in the payment of dues but the accounts are overlooked unless the



HENRY M. WHELPLEY St. Louis,
Treasurer.

treasurer is as energetic in giving them attention the first of each month as is the financial department of a jobbing or manufacturing firm in looking after its delinquent customers. I quote from members, as follows:

"I must humbly beg pardon for my neglect."

"Yes, I overlooked my dues this year but will be prompt hereafter."

"Your suggestion to 'act on the good impulse of the moment' is inspiring and here is $5.00."

"This time $5.00 and an apology. Next year, $5.00 again but no apology, for I will remit on time."

Some Members are Insurgents. It is not to be expected that a membership like that of the A. Ph. A. can be changed from a custom of two or three years' delinquency to a practice of prompt payment within thirty days, without some friction. I will give a few extracts from my correspondence to illustrate this fact.

After seven letters without a reply, a member responded to the eighth and inquired, "By what authority do you propose to drop me?" When informed on this point, he sent $5.00.

One man wrote: "I have been a member just thirty years and never paid before the end of the year. If you do not want such members, then drop me."

Many are Interested in the Treasurer's Methods. I make it a rule to take my work good-naturedly and handle each individual case as circumstances dictate. It is encouraging to find that those who become delinquent through accident or force of circumstances also maintain composure as is shown by these sample expressions.

"It was amusing to read some of the letters received by you while endeavoring to collect back dues; no doubt, you felt at times—as our wards of the Far East express it—'No can do,' but the results certainly showed well directed effort on your part. Let the good work go on."

"Good General! following up close; if we ever have war with Mexico, I propose your name, the enemy could not slip away from you. Sorry you had to waste so much paper and stamps on me. Give me a good scolding at Nashville."

"Your letters have therapeutic potency. They are rubifacient and stimulating but not vesicant nor irritating."

The most gratifying development and one which goes far in justifying my departure from the routine methods of a treasurer is the fact that the membership as a whole enters into my work and heartily supports my efforts to secure prompt payments. The following are a few of the many expressions I have on file, showing that the A. Ph. A. membership, taken as a whole, is in accord with my policy.

"I shall try your plan on our state association delinquents. Perhaps I will have to send for you to work it."

"Here is $10.00 and the suggestion that you be made treasurer ad infinitum."

The prompt payment of dues does not mean as much to a pharmaceutical association as it does to a business concern. A pharmaceutical organization is not a commercial enterprise but I believe associations would be more successful if ordinary business methods were observed in conducting financial matters. The success of the time payment plan demonstrates that people will meet simple obligations at frequent intervals when they will not pay the aggregate amount at one time. The prompt payment of annual dues is similar to monthly installments on the price of a piano. The association member who is permitted to run two or more years behind with his dues is likely to forfeit his membership, thus members are saved to the association by securing early yearly payments. The dues-paid members are the ones who feel most satisfied with the association and themselves and consequently are the most useful members. I estimate

that previously the average A. Ph. A. member paid his dues when delinquent for more than one year. The present plan means the earning of twelve months' interest for the association.

REPORT OF THE TREASURER.

H. M. WHELPLEY, ST. LOUIS.

January 1, 1912, to January 1, 1913.

Receipts.

Cash on hand January 1, 1912			$7,490 87
Annual dues 1908 (July 1, 1908, to July 1, 1909)	$ 5 00		
Annual dues 1909 (July 1, 1909, to July 1, 1910)	35 00		
Annual dues 1910 (July 1, 1910, to July 1, 1911)	385 00		
Annual dues 1911 (July 1, 1911, to July 1, 1912)	1,255 00		
Annual dues and Journal 1912 (July 1, 1912, to Jan. 1, 1913)	3,707 50		
Annual dues and Journal 1912 (July 1, 1912, to July 1, 1913)	1,300 00		
Annual dues and Journal 1913 (Jan. 1, 1913, to Jan. 1, 1914)	3,885 00		
Annual dues and Journal 1914 (July 1, 1914, to July 1, 1915)	5 00		
Dues only	28 50		
Journal only	26 25		
		$10,632 85	
Sale of 5 parchment certificates at $5.00	25 00		
Sale of 5 paper certificates at $3.00	15 00		
		40 00	
National Formulary		3,137 78	
Badges and Bars		60 87	
Bulletin of the A. Ph. A.		2 14	
Proceedings		146 27	
Journal Advertising		2,607 29	
Interest on Bonds	$ 400 00		
Interest on Deposits, International Bank	246 88	646 88	
Bank Exchange		3 99	
			$17,277 47
Hallberg Memorial Fund, interest and contributions	$ 104 55		
Hallberg Memorial Fund, placed in current fund for disbursement	3,366 82		
		$3,471 37	
Centennial Fund		30 00	
Life Membership Fund		415 00	

Procter Monument Fund		121 35	
Endowment Fund		10 00	
Ebert Legacy Fund, interest on deposits	$ 109 30		
Ebert Legacy Fund, placed in current fund for disbursement	12 95		
		122 25	
			4,169 97
Total			$28,938 31

Disbursements by Voucher Checks.

Jan. 15, Check 1930.	John Mors Co., Membership Committee		$ 5 78
Jan. 15, Check 1931.	E. F. Greathead, miscellaneous expenses		91 50
Jan 15, Check 1932.	Automatic Addressing Co., Journal (Bulletin)		3 14
Jan. 15, Check 1933.	Louis C. Hesse, printing, postage, stationery		8 50
Jan. 15, Check 1934.	C. Lewis Diehl, salaries		600 00
Jan. 15, Check 1935.	J. H. Beal:		
	Salaries	$1,000 00	
	Clerical	57 50	
	National Formulary	9 69	
	Miscellaneous expenses	14 85	
	Journal $2 10		
	Bulletin 1 65	3 75	
	Section on Historical Pharmacy	1 74	
	Membership Committee	18	
	Com. on Unofficial Standards	20	1,087 91
Feb. 1, Check 1936.	Geo. M. Beringer, Committee on Unofficial Standards		25 24
Feb. 1, Check 1937.	Wickersham Printing Co.:		
	National Formulary	47 22	
	Proceedings	10 45	57 67
Feb. 1, Check 1938.	Regan Printing House, Journal (Bulletin)		230 04
Feb. 1, Check 1939.	Henry M. Whelpley:		
	Printing, postage, stationery	32 46	
	Miscellaneous expenses	4 30	36 76
Feb. 12, Check 1940.	E. F. Greathead, printing, postage, stationery		11 90
Feb. 12, Check 1941.	W. J. Norris, Journal		24 00
Feb. 12, Check 1942.	American Medical Association, Membership Committee		5 70
Feb. 12, Check 1943.	Wm. B. Day:		
	Journal (Bulletin)	$ 8 00	
	Membership Committee	10 00	18 00
Feb. 20, Check 1944.	Louis C. Hesse, printing, postage, stationery		24 00
Feb. 20, Check 1945.	The Stoneman Press Co., Journal		354 32
Feb. 20, Check 1946.	John Mors Co., Membership Committee		3 60
Feb. 20, Check 1947.	L. A. Druehl, Membership Committee		14 00
Feb. 20, Check 1948.	Henry M. Whelpley, printing, postage and stationery		43 95
Mar. 4, Check 1949.	The Stoneman Press Co.:		
	Printing, postage and stationery	$ 5 00	
	Journal	15 50	20 50
Mar. 4, Check 1950.	The Dewey Printery, printing, postage and stationery		13 50
Mar. 4, Check 1951.	Wm. B. Day, Membership Committee		10 00
Mar. 4, Check 1952.	J. W. England, printing, postage, stationery		34 21

Mar. 4, Check 1953.	The Stoneman Press Co.:		
	Journal	$353 03	
	Printing, postage and stationery	10 00	363 03
Mar. 4, Check 1954.	J. C. Block, miscellaneous expenses		12 50
Mar. 22, Check 1955.	M. I. Wilbert, National Formulary, experimental		31 30
April 3, Check 1956.	Louis C. Hesse, printing, postage, stationery		22 00
April 3, Check 1957.	Chas. Caspari, Jr., miscellaneous expenses		32 77
April 5, Check 1958.	E. F. Greathead, printing, postage, stationery		11 90
April 5, Check 1959.	Wickersham Printing Co., National Formulary, general		37 25
April 5, Check 1960.	Wm. B. Day, Membership Committee		10 00
April 5, Check 1961.	The Stoneman Press Co.:		
	Journal	$ 1 25	
	Printing, postage and stationery	6 75	
	Com. on Status of Pharmacists	4 50	12 50
April 11, Check 1962.	The Stoneman Press Co., Journal		285 44
April 11, Check 1963.	Buxton & Skinner, miscellaneous expenses		13 07
April 11, Check 1964.	Louis C. Hesse, printing, postage, stationery		14 25
April 11, Check 1965.	Edward Kremers, Section on Historical Pharmacy		45 00
April 20, Check 1966.	Wickersham Printing Co.:		
	National Formulary	$125 16	
	Proceedings	4 54	129 70
April 20, Check 1967.	J. H. Beal:		
	Clerical	56 00	
	Office Equipment	17 15	
	Printing, postage and stationery	18 91	
	National Formulary, general	2 06	
	Journal	65	
	Miscellaneous expenses	4 38	99 15
April 20, Check 1968.	J. H. Beal:		
	Clerical	$ 73 30	
	Printing, postage and stationery	5 20	
	National Formulary, general	5 64	
	Miscellaneous expenses	4 70	88 84
April 20, Check 1969.	The Stoneman Press Co., printing, postage and stationery		5 00
April 20, Check 1970.	St. Louis Branch, A. Ph. A., Membership Committee		14 00
May 1, Check 1971.	J. H. Beal:		
	Clerical	$ 73 65	
	National Formulary, general	3 11	
	Miscellaneous expenses	37 20	
	Proceedings	2 10	
	Printing, postage and stationery	5 00	
	Membership Committee	1 24	
	Journal	8 76	131 06
May 1, Check 1972.	The Stoneman Press Co., Journal		388 90
May 1, Check 1973.	W. B. Day, Membership Committee		15 00
May 10, Check 1974.	The Stoneman Press Co., Journal		14 25
May 10, Check 1975.	E. F. Greathead, printing, postage, stationery		11 90
May 10, Check 1976.	John Mors Co., Membership Committee		6 00
May 10, Check 1977.	J. W. England, printing, postage, stationery		16 28
May 10, Check 1978.	H. M. Whelpley:		
	Printing, postage and stationery	$ 65 60	
	Miscellaneous expenses	28 75	94 35

May 18, Check 1979.	Louis C. Hesse, printing, postage, stationery.			14 75
May 18, Check 1980.	W. T. Robinson, Membership Committee...			4 50
May 18, Check 1981.	Alpha Photo Engraving Co., Proceedings...			30 00
May 18, Check 1982.	Denver Branch, A. Ph. A., Membership Committee			10 00
May 18, Check 1983.	J. H. Beal, salaries.....			1,000 00
June 12, Check 1984.	Louis C. Hesse, printing, postage, stationery.			12 75
June 12, Check 1985.	Wickersham Printing Co.:			
	Proceedings	$ 7 50		
	National Formulary.....	17 25		24 75
June 12, Check 1986.	Christopher Koch, National Legislation Com.			39 50
June 12, Check 1987.	Fred A. Hubbard, National Legislation Com.			60 00
June 12, Check 1988.	The Stoneman Press Co., Journal.....			399 74
June 12, Check 1989.	W. B. Day, Membership Committee.....			10 00
June 12, Check 1990.	Alpha Photo Engraving Co., Proceedings...			6 60
June 12, Check 1991.	Geo. M. Beringer, National Formulary.....			34 20
June 12, Check 1992.	John Mors Co., Membership Committee....			2 95
June 12, Check 1993.	E. F. Greathead, printing, postage, stationery			4 50
June 12, Check 1994.	J. H. Beal:			
	Clerical	$ 74 70		
	National Formulary, general.....	3 30		
	Printing, postage and stationery..	18 57		
	Journal	65 01		
	Miscellaneous expenses.....	4 55		166 13
June 24, Check 1995.	John C. Wallace, Committee on National Legislation			25 75
June 24, Check 1996.	Alpha Photo Engraving Co., Proceedings...			6 35
June 24, Check 1997.	The Stoneman Press Co., Journal.....			4 50
June 24, Check 1998.	J. H. Beal:			
	Clerical	$ 76 00		
	National Formulary.....	22		
	Proceedings	75		
	Miscellaneous expenses.....	1 00		
	Journal	1 00		
	Printing, postage and stationery..	9 75		88 72
June 24, Check 1999.	Louis C. Hesse, printing, postage, stationery.			9 25
July 2, Check 2000.	The Stoneman Press Co., Journal.....			5 55
July 2, Check 2001.	Wickersham Printing Co., National Formulary			45 00
July 2, Check 2002.	W. B. Day, Membership Committee.....			12 10
July 15, Check 2003.	The Stoneman Press Co., Journal.....			406 79
July 15, Check 2004.	W. B. Day, miscellaneous expenses.....			5 00
July 18, Check 2005.	The Stoneman Press Co.:			
	Membership Committee.....	$ 5 50		
	Journal	3 50		
	Printing, postage and stationery..	5 00		
	Annual Register (special appropriation)	13 00		27 00
July 18, Check 2006.	H. M. Whelpley, printing, postage, stationery			36 96
July 18, Check 2007.	Eckenrode & Myers, National Formulary Insurance			2 75
July 18, Check 2008.	F. W. Nitardy, Treas. Denver Branch, Membership Committee.....			13 00
July 22, Check 2009.	Wickersham Printing Co.:			
	National Formulary.....	$ 74 84		
	Proceedings	18 13		92 97

July 22, Check 2010.	The Stoneman Press Co., printing, postage and stationery			3 50
July 22, Check 2011.	J. H. Beal:			
	Clerical		$ 73 35	
	Printing, postage and stationery		21 30	
	Proceedings		1 60	
	National Formulary		1 19	
	Miscellaneous expenses		3 79	
	Journal		22 14	123 37
Aug. 14, Check 2012.	H. M. Whelpley, printing, postage, stationery			43 40
Aug. 14, Check 2013.	Louis C. Hesse, printing, postage, stationery			5 25
Aug. 14, Check 2014.	W. B. Day, Membership Committee			15 00
Aug. 14, Check 2015.	John Mors Co., Membership Committee			6 90
Aug. 14, Check 2016.	The Stoneman Press Co., Journal			422 27
Aug. 14, Check 2017.	Dewey the Printer, Membership Committee			22 00
Sept. 11, Check 2018.	C. Lewis Diehl, Salaries			600 00
Sept. 11, Check 2019.	The Stoneman Press Co.:			
	Printing, postage and stationery		$ 14 00	
	Journal		364 24	378 24
Sept. 20, Check 2020.	J. W. England:			
	Printing, postage and stationery		$ 14 88	
	Traveling expense		116 30	131 18
Sept. 20, Check 2021.	C. Lewis Diehl:			
	National Formulary experiments		24 50	
	Proceedings		1 10	25 60
Sept. 20, Check 2022.	John Mors Co., Membership Committee			6 75
Sept. 20, Check 2023.	Louis C. Hesse, printing, postage, stationery			11 75
Sept. 20, Check 2024.	E. F. Greathead, printing, postage, stationery			11 90
Sept. 20, Check 2025.	Wickersham Printing Co., National Formulary			68 84
Sept. 20, Check 2026.	J. H. Beal:			
	Clerical		$ 76 00	
	Printing, postage and stationery		22 20	
	Journal		19 38	
	Miscellaneous expenses		2 49	120 07
Sept. 20, Check 2027.	A. H. Fetting, badges and bars			28 00
Sept. 20, Check 2028.	Thomas Multigraphing Co., printing, postage and stationery			5 00
Sept. 20, Check 2029.	John C. Wallace, Section on Education and Legislation			6 00
Sept. 20, Check 2030.	John G. Godding, printing, postage, stationery			28 67
Sept. 20, Check 2031.	Geo. M. Beringer, Committee on Unofficial Standards			62 53
Sept. 20, Check 2032.	P. Henry Utech, Section on Practical Pharmacy and Dispensing			13 95
Sept. 20, Check 2033.	Clyde M. Snow, printing, postage, stationery			1 50
Oct. 2, Check 2034.	H. M. Whelpley, Salaries			500 00
Oct. 2, Check 2035.	Frederick T. Gordon, Section on Historical Pharmacy			2 25
Oct. 2, Check 2036.	J. H. Beal:			
	Salaries		$1,000 00	
	Clerical		76 00	
	National Formulary		7 43	
	Miscellaneous expenses		2 40	
	Printing, postage and stationery		5 00	1,090 83
Oct. 11, Check 2037.	J. H. Beal, traveling expense, special			400 00

Oct. 11, Check 2038.	Wilber J. Teeters, Section on Education and Legislation		6 34
Oct. 11, Check 2039.	F. W. Nitardy, Sec'y., Membership Com...		26 00
Oct. 16, Check 2040.	The Stoneman Press Co.:		
	Printing, postage and stationery..	$ 53 75	
	Journal	448 98	502 73
Oct. 16, Check 2041.	Wickersham Printing Co.:		
	National Formulary	188 01	
	Proceedings	30 82	218 83
Oct. 16, Check 2042.	J. H. Beal:		
	Clerical	73 35	
	Journal	23 73	
	Printing, postage and stationery..	70 98	
	Miscellaneous expenses	10 05	
	National Formulary, general	1 15	179 26
Oct. 24, Check 2043.	Fred T. Gordon, Section on Historical Pharmacy		5 25
Oct. 24, Check 2044.	Wm. B. Day, Sec. & Treas. Chicago Branch, membership expenses		14 00
Nov. 1, Check 2045.	W. T. Robinson, Membership Committee....		6 00
Nov. 1, Check 2046.	Wm. B. Day, Membership Committee		10 00
Nov. 1, Check 2047.	G. D. Spiker & Son, miscellaneous expenses.		36 67
Nov. 7, Check 2048.	J. W. England, salaries		150 00
Nov. 7, Check 2049.	Geo. F. Payne, Status of Pharmacists		250 00
Nov. 7, Check 2050.	Louis C. Hesse, printing, postage, stationery		27 10
Nov. 16, Check 2051.	The Stoneman Press Co.:		
	Printing, postage and stationery..	$ 19 50	
	Journal	388 88	408 38
Nov. 16, Check 2052.	Midland Publishing Co.:		
	Printing, postage and stationery..	5 65	
	Journal	3 60	9 25
Nov. 16, Check 2053.	Wickersham Printing Co., National Formulary, general		136 50
Nov. 16, Check 2054.	Title Guaranty Trust Co., miscellaneous expenses		5 00
Nov. 16, Check 2055.	J. H. Beal:		
	Clerical	$ 76 00	
	Printing, postage and stationery..	1 25	
	Miscellaneous expenses	11 75	89 00
Nov. 25, Check 2056.	Wilber J. Teeters, Section on Education and Legislation		12 38
Nov. 25, Check 2057.	Louis C. Hesse, printing, postage, stationery		2 20
Dec. 2, Check 2058.	J. Leon Lascoff, Section on Pharmacy and Dispensing		5 90
Dec. 2, Check 2059.	American Bonding Co., treasurer's bond....		37 50
Dec. 2, Check 2060.	St. Louis Branch, A. Ph. A., Membership Committee		18 00
Dec. 9, Check 2061.	Louis C. Hesse, printing, postage, stationery		12 25
Dec. 9, Check 2062.	A. H. Clark, Membership Committee		5 00
Dec. 9, Check 2063.	The Stoneman Press Co.:		
	Printing, postage and stationery..	$ 3 00	
	Journal	444 78	447 78
Dec. 10, Check 2064.	Louis C. Hesse, printing, postage, stationery		4 75
Dec. 10, Check 2065.	McLean & Boone, Journal (stenographers).		350 00

Dec. 10, Check 2066.	J. H. Beal:		
	Clerical	$ 87 62	
	Printing, postage and stationery	27 25	
	Journal	24 60	
	Miscellaneous expenses	24 22	163 69
Dec. 19, Check 2067.	J. H. Beal, salaries		1,000 00
Dec. 19, Check 2068.	H. M. Whelpley, salaries		500 00
Dec. 19, Check 2069.	C. Lewis Diehl, salaries		600 00
Dec. 19, Check 2070.	J. W. England, salaries		150 00
Dec. 27, Check 2071.	H. M. Whelpley:		
	Traveling exenses	$ 85 50	
	Printing, postage and stationery	85 16	
	Miscellaneous expenses	18 75	189 41
Dec. 27, Check 2072.	J. W. England, printing, postage, stationery		18 02
Dec. 27, Check 2073.	Louis C. Hesse, printing, postage, stationery		9 25
Dec. 27, Check 2074.	A. H. Clark, Membership Committee		10 00
Dec. 27, Check 2075.	The Stoneman Press Co.:		
	Journal	$ 6 25	
	Printing, postage and stationery	4 50	
	Miscellaneous expenses	11 00	21 75
Dec. 27, Check 2076.	J. H. Beal, traveling expenses		98 50
			$17,103 16

Disbursed from Hallberg Memorial Fund by Check.

April 11, Check 2484.	American Bond and Mortgage Co., Interest on taxes	$ 82 50	
May 20, Check 2485.	American Bond and Mortgage Co., Theresa Hallberg loan	3,043 54	
April 14, Check 2483.	Chicago Exchange, taxes on the Hallberg home	106 36	
Aug. 14, Check 2486.	Chicago Exchange, paving of alleys	71 31	
Oct. 17, Check 2482.	Chicago Exchange, Mrs. C. S. N. Hallberg	63 11	
			3,366 82

Disbursed from Ebert Legacy Fund by Check.

Feb. 8, Check 2487.	Taxes, Carlton Prouty, collector		12 95

Cash Received and Disbursed Without Checks.

Centennial Fund	$ 30 00	
Ebert Legacy Fund	109 30	
Life Membership Fund	415 00	
Procter Monument Fund	121 35	
Hallberg Memorial Fund	104 55	
Endowment Fund	10 00	
		790 20
Total amount of disbursements		$21,273 13

Summary of Disbursements.

Salaries	$7,100 00
Journal	5,095 97
Printing, stationery and postage	1,010 80
Miscellaneous expenses	380 69
Badges and bars	28 00

Clerical expense for Secretary's office	890 62	
Proceedings	119 94	
National Formulary	863 86	
Traveling expenses	300 00	
Traveling expense, special, for Dr. Beal	400 00	
Insurance	2 75	
Premium on Treasurer's Bond	37 50	
Annual Register	13 00	
Committee on National Legislation	125 25	
Committee on Unofficial Standards	87 97	
Committee on Status of Pharmacists	254 50	
Committee on Membership	293 20	
Section on Practical Pharmacy	19 85	
Section on Education and Legislation	24 72	
Section on Historical Pharmacy	54 24	
		$17,103 16
Payment out of Hallberg Memorial Fund		3,366 82
Payment out of Ebert Legacy Fund		12 95
To Hallberg Memorial Fund	$104 55	
To Ebert Legacy Fund	109 30	
To Centennial Fund	30 00	
To Life Membership Fund	415 00	
To Procter Monument Fund	121 35	
		790 20
Total amount of Disbursements		$21,273 13
Cash on hand January 1, 1913		7,665 18
Total		$28,938 31

A. Ph. A. Appropriations and Disbursements, January 1, 1913.

	Appropriations	Expenditure
Salaries	$5,500 00	$7,100 00
Journal	5,050 00	5,095 97
Printing, stationery and postage	1,000 00	1,010 80
Miscellaneous expenses	500 00	380 69
Badges and bars	75 00	28 00
Clerical expense for Secretary's office	1,000 00	890 62
Proceedings	1,550 00	119 94
National Formulary	1,728 62	863 86
Traveling expenses	200 00	300 30
Traveling expense, special, for Dr. Beal	400 00	400 00
Insurance	50 00	2 75
Premium on Treasurer's bond	37 50	37 50
Annual Register	25 00	13 00
Committee on National Legislation	117 65	125 25
Committee on Unofficial Standards	300 00	87 97
Committee on Status of Pharmacists	250 00	254 50
Section on Practical Pharmacy	25 00	19 85
Section on Education and Legislation	25 00	24 72
Section on Historical Pharmacy	50 00	54 24
Committee on Membership	375 00	293 20
Journals for Reporters	35 00	
Certificates	50 00	
Section on Commercial Interests	25 00	

Section on Scientific Papers	25 00	
National Syllabus Committee	25 00	
Appropriation	$18,418 77	$17,103 16
Expenditure	17,103 16	
Unexpended balance	$ 1,315 61	

The Permanent Funds on January 1, 1913.

	1912	1913
Life Membership Fund	$18,528 46	$18,969 25
Endowment Fund	5,374 57	5,601 79
Ebert Legacy Fund	3,069 79	3,166 14
Centennial Fund	2,546 22	2,639 13
Ebert Prize Fund	983 84	1,023 56
	$30,502 88	$31,406 87
		30,502 88
Net increase during fiscal year		$ 903 99

The Association Assets, January 1, 1913.

Cash in bank	$ 7,665 18		
Bonds	10,000 00		
Available assets		$17,665 18	
Permanent Funds		31,406 87	
Total Association assets			$49,072 05
Procter Monument Fund (held in trust)		$ 4,855 48	
College Prize Fund (held in trust)		32 88	
			4,883 36
Grand Total			$53,955 41

DETAILED STATEMENT OF THE SEVERAL FUNDS.

Life Membership Fund (Established in 1870.)

Balance from old account viz:			
Massachusetts state bonds			$13,000 00
Boston Penny Savings Bank, January 1, 1912		$5,333 46	
Interest on deposit in Boston Penny Savings Bank	$220 79		
Interest on Massachusetts state bond	390 00		
Life Membership Fee, Arthur Walbrach	25 00		
Deposited in Boston Penny Savings Bank (Jan. 1, 1912, to Jan. 1, 1913)		635 79	
			5,969 25
Total on hand January 1, 1913			$18,969 25

Ebert Prize Fund (Established in 1873.)

Balance from old account	$ 983 84
Interest on deposits in Boston Penny Savings Bank	39 72
Total on hand January 1, 1913	$ 1,023 56

Centennial Fund (Established in 1877.)

Balance from old account, viz:			
Massachusetts 3% registered bond			$ 1,000 00
Boston Penny Savings Bank, January 1, 1912		$ 1,546 22	
Interest on bond	$ 30 00		
Interest on Boston Penny Savings Bank	62 91		
Deposited in Boston Penny Savings Bank (Jan. 1, 1912, to Jan. 1, 1913)		92 91	
			1,639 13
Total on hand January 1, 1913			$ 2,639 13

Endowment Fund (Established in 1906.)

Balance from old account January 1, 1912			$ 5,374 57
Interest on deposit in Boston Penny Savings Bank		$ 217 22	
Deposited in Boston Penny Savings Bank		10 00	
			227 22
Total on hand January 1, 1913			$ 5,601 79

Procter Monument Fund (Established in 1904.)
Held in Trust.

Balance from old account, viz:			
Placed in International on time deposit, January 1, 1912			$ 4,050 71
Interest on time deposit at 4%, July 1, 1911, to July 1, 1912	$162 02		
Interest on time deposit at 4%, July 1, 1912, to Jan. 1, 1913	87 25		
		$249 27	
Added to time deposit		149 90	
			399 17
Certificate No. 60,141			$ 4,449 88
Deposited in International Bank Jan. 1, 1912	$434 15		
May 10, contribution by J. G. Godding	$ 10 00		
June 27, contribution by N. A. R. D. (T. H. Potts)	100 00		
Interest on International Bank, Jan. 1 to Dec. 1, 1912	11 35		
	121 35		
		$555 50	
Withdrawn and placed on time deposit certificate		149 90	
Deposited in International Bank			405 60
Total on hand January 1, 1913			$ 4,855 48

College Prize Fund (Established in 1905.)
Held in Trust.

Balance from old account, January 1, 1912	$ 31 62
Interest on Boston Penny Savings Bank	1 26
Total on hand, January 1, 1913	$ 32 88

Hallberg Memorial Fund (Established in 1911.)
Held in Trust.

Balance from old account, January 1, 1912		$ 3,262 27	
Contributions	$ 67 00		
Interest on deposit, International Bank	37 55		
		104 55	
			$ 3,366 82
Disbursed for Hallberg indebtedness			3,366 82

Ebert Legacy Fund (Established in 1909.)

St. Louis City Registered Gold Bond			$ 2,000 00
Balance from old account	$ 1,069 79		
Interest on St. Louis City Bond	$80 00		
Interest on deposit, International Bank	29 30		
		109 30	
		$ 1,179 09	
Disbursement		12 95	
Cash on hand, January 1, 1913			1,166 14
Total, January 1, 1913			$ 3,166 14

H. M. WHELPLEY, Treasurer.

REPORT OF THE COMMITTEE ON INVESTED AND TRUST FUNDS.

The American Pharmaceutical Association at the present time has five permanent funds and two trust funds. The permanent funds at this date amount to $32148.56 and the trust funds $5918.80, making a total of $38067.36.

INVESTED FUNDS.

The Life Membership Fund is $19,520.58. Of this amount $13,000.00 is in 3 percent Massachusetts State bonds, due January 1, 1941. The remaining $6,520.58 is on deposit in the Boston Penny Savings Bank and at present draws 4 percent interest, but the rate may be lowered any time. We recommend that bonds to the face value of $6,000.00 be purchased out of the money now in bank.

The Endowment Fund is $5,713.81, and draws 4 percent interest in the Boston Penny Savings Bank. Your Committee advise the investment in bonds to the face value of $5,500.00.

The Ebert Legacy Fund is $3193.09, of which $2,000.00 is in 4 percent St. Louis City gold bonds, due October 1, 1929. The sum of $1,166.14 is in a 4 percent certificate of deposit in the International Bank of St. Louis, and $26.95 on deposit in the same bank. We advise investment in bonds of $1,000.00 face value.

The Centennial Fund is $2,702.06, of which $1,000.00 is in 3 percent Massachusetts State Bonds, due January 1, 1941, and $1,702.06 is on deposit in the Boston Penny Savings Bank at 4 percent. The committee advise investment in bonds of the face value of $1,500.00.

The Ebert Prize Fund is now $1,044.02, all of which is on deposit at 4 percent in the Boston Penny Savings Bank. We recommend investment in bonds of $1,000.00 face value.

It is understood that bonds purchased must be long term United States Gov-

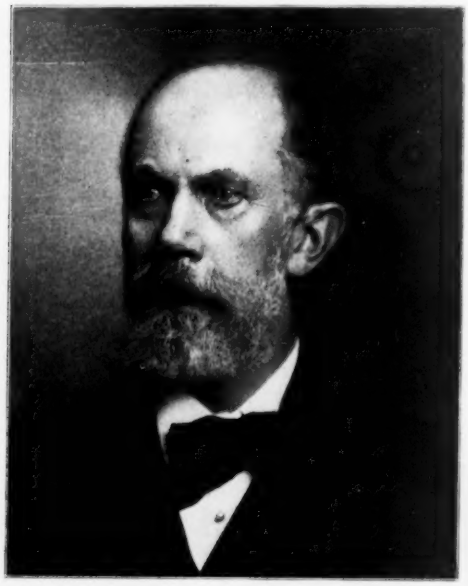
ernment or State bonds, to be purchased by the treasurer with the approval of the Committee on Invested and Trust Funds.

Bonds are to be registered in the name of the American Pharmaceutical Association.

TRUST FUNDS.

The Procter Monument Fund is $5,885.28, of which $4,449.88 is in a 4 percent certificate of deposit in the International Bank of St. Louis. The $1,435.40 is on deposit in the same bank.

The College Prize Fund amounts to $33.52. We advise the transfer of this account to the Endowment Fund.



WILHELM BODEMANN, Hyde Park, Chicago, Chairman Committee on Transportation, 1912-1913.

JOSEPH W. ENGLAND, Philadelphia, Chairman Committee on Publication and Secretary of the Council.

The Hallberg Memorial Fund, established February 16, 1911, amounted to $4,603.39, which sum was expended in accordance with purpose of the fund and the account closed October, 1912.

Contributions to fund		$4,486 49
Interest on fund		116 90
Expense of collecting	$ 10 00	
Paid accounts of C. S. N. Hallberg	4,530 28	
Paid Mrs. Hallberg	63 11	
	$4,603 39	$4,603 39

J. H. BEAL,
H. M. WHELPLEY,
E. G. EBERLE.

A full history of the invested and trust funds is given in the American Pharmaceutical Association proceedings for 1911, page XXVIII.

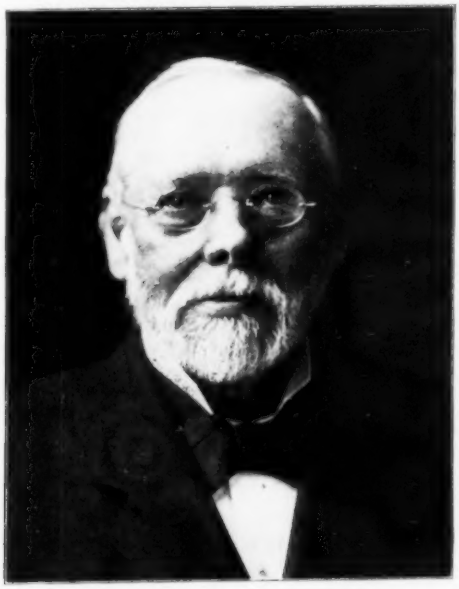
REPORT OF THE AUDITING COMMITTEE.

To the Officers and Members of the American Pharmaceutical Association:

We have examined the books of Henry M. Whelpley and James H. Beal, respectively Treasurer and General Secretary of the American Pharmaceutical Association, for the fiscal year 1912, and compared the records with the vouchers and found them correct. We have found a proper accounting for all of the funds of the Association. The cash balance to January 1, 1913, corresponds with the books of the International Bank of St. Louis, and the registered bonds and certificates of deposit in the hands of the Treasurer.

AUDITING COMMITTEE, per
OTTO F. CLAUS,
Chairman.

St. Louis, Mo., July 19, 1913.



C. LEWIS DIEHL, Louisville, Ky.,
Chairman Committee on National Formulary,
and Reporter on the Progress of
Pharmacy.

REPORT OF THE COMMITTEE ON NATIONAL FORMULARY.

C. LEWIS DIEHL, CHAIRMAN.

The work of the National Formulary Committee during the past year in conformity with the plan announced at the last annual meeting, has consisted chiefly of perfecting the manuscript for the proposed N. F. IV. The revision is in such condition at this time that publication would be possible on short notice. It is the indication now to provide simultaneous publication of the U. S. P. IX and

N. F. IV so that conflicting standards may be avoided. This will be accomplished by means of cooperation through a committee, consisting of members from both the U. S. P. and the N. F. Revision Committees.

All but sixteen of the formulas originally proposed for admission to the N. F. IV have been edited in proposed form and submitted to the committee in the Mimeographed Bulletin for approval or for correction.

Since the published list of U. S. P. VIII articles which are not to be admitted to the U. S. P. IX, the committee have voted to admit the following to the N. F. IV in practically the form now official:

Acetum Opii
Bismuthi Citras
Ceratum Camphorae
Collodium Stypticum
Confectio Rosae
Confectio Sennae
Emulsum Olei Morhuae Cum Hypophosphitibus
Emplastrum Saponis
Extractum Haematoxyli
Ferri Hydroxidum
Fluidextractum Chimaphilae
Fluidextractum Chiratae
Fluidextractum Conii
Fluidextractum Cypripedii
Fluidextractum Euonymi
Fluidextractum Eupatorii
Fluidextractum Geranii
Fluidextractum Lappae
Fluidextractum Hamamelidis Folorium
Fluidextractum Lupulini
Fluidextractum Matico
Fluidextractum Phytolaccae
Fluidextractum Quassiae
Fluidextractum Quercus
Fluidextractum Rubi
Fluidextractum Sanguinariae
Fluidextractum Scutellariae
Fluidextractum Stramonii
Liquor Antisepticus
Mistura Ferri Composita
Oleum Aethereum
Pilulae Aloes Et Ferri
Pilulae Aloes Et Mastiches
Pilulae Aloes Et Myrrhae
Pilulae Catharticae Vegetabiles
Pilulae Laxativae Comp.
Pulvis Acetanilidi Compositus
Spiritus Aetheris Compositus
Sulphuris Iodium
Syrupus Ferri, Quininae Et Strychninae Phosphatum
Syrupus Krameriae
Syrupus Rubi
Tincture Aloes Et Myrrhae
Tinctura Calendulae
Tinctura Cimicifugae
Tinctura Gallae
Tinctura Ipecacuanhae et Opii
Tinctura Quillajae
Tincturae Herbarum Recentium
Tinctura Serpentariae
Trochisci Gambir
Trochisci Santonini
Unguentum Hydrargyri Oxidi Rubri
Unguentum Potassii Iodidi
Unguentum Veratrinae
Unguentum Zinci Stearatis
Vinum Album
Vinum Antimonii
Vinum Colchici Sem.
Vinum Ferri
Vinum Ferri Amarum
Vinum Ipecacuanhae

The thanks of the committee are offered to the Committee on Unofficial Standards for their splendid cooperative work in preparing standards for such simple substances as are not to be official in the U. S. P. IX, but which are required in formulas of the N. F. IV.

They have prepared standards for practically all of the articles and the few remaining titles not yet reported are in the hands of referees and will soon be before the committee.

Wherever possible standards for strength and purity and suitable tests and assays will be supplied in the new book; in some instances this will be covered by descriptions only, but throughout an effort has been made to provide standard, descriptions, and tests which will be practicable and adaptable to the advanced position which the book occupies.

The committee would ask that the Council take the necessary steps to provide for publication and sale of the new book so that there will be no delay when the manuscripts of the U. S. P. and N. F. are fully ready for placing in the printer's hands.

THE REPORTS ON THE PROGRESS OF PHARMACY.

C. L. DIEHL, REPORTER ON THE PROGRESS OF PHARMACY.

This is not intended to be an introductory to the Report on the Progress of Pharmacy, but a concise statement of the status of the Reports for 1912 and 1913, the one past due, the other to become due within a reasonable time after the middle of January of next year; incidentally also of causes that have led up to delay in the publication of the Report for 1911 and their influence upon the delay in publishing the one for 1912 and the possible tardiness in finishing the manuscript for that of 1913.

It will be remembered that at the meeting in Boston, 1911, it was decided to change the fiscal year of the Association so as to cover the full number of months of the calendar year—from January to December, inclusive. It was also decided that the Report on the Progress of Pharmacy should hereafter cover the entire calendar year instead of, as heretofore, from July of one year to June 30 of the next, and with this object in view, the Reporter was directed to include the abstracts covering the six months of 1911, from July 1 to December 31, in his report for that year. This meant, of course, six additional months' work, and a report covering a period of eighteen months instead of twelve months for 1911. It meant also a loss of approximately three months' time to do this work of six; hence the completion of the report would necessarily be further delayed to that extent beyond the time which had been previously conceded for the systematic arrangement, unavoidable delays, etc., which consumed usually from July to October.

Nevertheless, and notwithstanding some unavoidable delays (due to other important work for the Association), the report, properly arranged for the printer, was forwarded by express to the General Secretary on June 5, 1912, and had the manuscript gone immediately into the hands of the printer, the report might have been delivered to the members within at most three months thereafter.

As a matter of fact, by action of the Council, the publication was delayed so that the printer did not get to work on the report until late in September; at all events, the first installment of galley proofs was received by me for correction September 23, 1912, and the last installment on May 5, 1913—fifty-eight installments of galley proofs of text and perhaps five or six of index page proofs being received in all, *and in each case corrected and returned on the same day or by the next mail* during that period. And on June 21, forty-seven days thereafter, I received the bound volume.

I do not know how to account for the extraordinary delay, but am inclined to think that it was due to a combination of fortuitous conditions for which no one in particular is to blame. It is clear to my mind, however, that under normal conditions, it is quite possible to get out the report within three months after the complete text has reached the printer's hands. So far as the index is concerned, this goes hand in hand with the correction of the page proofs, and there was no delay on this score except the scarcity of type—the index being unexpectedly voluminous.

Now, regarding the Report for 1912. The manuscript for this has been ready since the end of February of this year, but has remained in my hands because of the indecision as to the manner of its publication, resulting from my plea addressed to the Council against the method adopted at Denver. The members who have read the Council Letters in the JOURNAL of the Association are doubtless familiar with my views, as well as with the views of others who differ with me and of those who support my views, and I have no argument to make now other than to say that I would consider it exceedingly unfortunate if the decision at this meeting should be in favor of the Denver proposition.

If, however, the Association shall recind its action at Denver, and decide that the report shall be issued as a separate publication, like the Report of 1911, the manuscript can be systematically arranged shortly after adjournment of the present meeting, and ready for the printer by the middle of September at the latest. If then the galley proofs reach me daily and regularly, the printing should not require more than sixty days and the binding could follow quickly, so that by February 1st the volume could be distributed to the members.

Owing to illness during the early part of this year, coupled with work on the N. F. and on the U. S. P. demanding much of my attention, the preparation of abstracts for the Report of 1913 has not progressed as favorably as I could wish. Yet, with the assistance of my collaborators I can reasonably hope to have the manuscript ready for the printer by the middle of March or early in April, and the report should then be ready for distribution on or before July 1, 1914.

Finally, it is my opinion that under normal conditions, free from the handicap of National Formulary and Pharmacopœia work, it will be quite possible to get out the volume by May 1st of each year, particularly if the collaborators will give the same assistance—for which my thanks are due them—in future reports as they have in the one for 1912, and have promised for the Report of 1913.

REPORT OF THE COMMITTEE ON LOCAL BRANCHES.

THEO. D. WETTERSTROEM, CHAIRMAN.

The Committee on Organization of Local Branches of the A. Ph. A. reports that a branch has been organized in Cincinnati, Ohio, during the past year. On February 11, 1913, the initial meeting was held at the Lloyd Library and a full list of officers was elected.

Meetings are held second Tuesday of each month.

The meetings have been very interesting and well attended. A largely increased membership is expected this coming winter.

Professor C. T. P. Fennel was elected member of Council to represent the Cincinnati Section.

Respectfully submitted,

THEO. D. WETTERSTROEM, Cincinnati, O.
GEORGE B. KAUFFMAN, Columbus, O.
D. V. WHITNEY, Kansas City, Mo.
F. R. ELDRED, Indianapolis, Ind.
CHARLES W. JOHNSON, Seattle, Wash.

REPORT OF THE COMMITTEE ON TIME AND PLACE.

The Committee on Time and Place beg to report that they have received invitations from the following cities: Atlantic City, Chicago, Cincinnati, Detroit, Grand Rapids, Merchants' Association of New York, St. Louis, and St. Paul. After careful consideration of all these invitations it believes that the best interests of the Association would be served by meeting in Detroit, the date to be decided by the Council.

THOMAS F. MAIN.
LEONARD A. SELTZER.

REPORT OF THE COMMITTEE ON NATIONAL LEGISLATION FOR 1912 AND 1913.

JOHN C. WALLACE, CHAIRMAN.

The closing session of the 62nd Congress being short, the change in the administration of the Government, the convening of the 63rd Congress in special session for the purpose of enacting tariff legislation, which has overshadowed all else, except anti-narcotic legislation, has made the labors of this committee light.

The interests of the trade in anti-narcotic legislation centered in the National Drug Trade Conference, a child of this organization. The delegates thereto will report later.

Legislation relating to the advancement of pharmacists in the government service has been in charge of a special committee, who will doubtless report to you the progress they have made.

Congress was in session at the time of the Denver convention and a complete and exhaustive report was made at that time. It was anticipated that the Richardson bill would be reported from the committee with a favorable recommendation, but we were agreeably surprised when the Sherley bill was reported out and the Richardson bill allowed to peacefully slumber for the time being.

The Sherley bill amended Section 8, which is the mis-branding section, of the Food and Drug Act of June 30, 1906, by adding thereto a third paragraph as follows: "If its package or label shall bear or contain any statement, design or device regarding the curative or therapeutic effect of such article or any of its ingredients or substances contained therein which is false and fraudulent."

Another amendment to the Act of June 30, 1906, provided for the placing on all packages of food the amount contained therein, in weight, measure, volume or count. The original amendment included drugs and medicines, but this provision was eliminated before its enactment. It also exempted packages retailing for less than six cents.

That the labors of this committee have not been arduous, was not on account of a lack of bills relating to the trade being introduced in Congress, as about fifty measures of greater or less importance have been introduced, but for the reason that the tariff and anti-narcotic legislation have been the most important. The tariff was looked after by those more directly interested, and three members of this committee were your delegates to the National Drug Trade Conference.

The tariff bill has had the right of way at all times, but, as it has not yet

been enacted, your committee have not felt it necessary to undertake to make any figures in relation thereto, as it would be almost an endless task, and those who were vitally interested were able to obtain weekly full and complete reports through the Oil, Paint and Drug Reporter.

We will, however, refer to those measures relating to the trade that have been introduced since the report of your committee at the Denver meeting, one year ago.

Comparatively few bills relating to the trade were introduced into the third session of the 62nd Congress. They are as follows:

Senate Bill No. 7503, introduced by Senator Penrose, was for the purpose of reducing postage on first-class mail to one cent per ounce.

Senate Bill No. 7722, by Senator Swanson, was to promote the efficiency of the Public Health Service, practically a technical expense account and travel pay measure.

H. R. Bill No. 27492, by Mr. Steenerson, was to prevent the manufacture, sale or transportation of misbranded articles of commerce. It was known as the "Pure Clothes Bill," but could have affected dyestuffs and many chemicals had it been enacted.

H. R. Bill No. 28277, introduced by Mr. Harrison, was to impose a tax upon the production, manufacture, sale and distribution of certain drugs and providing registration with collectors of internal revenue of dealers in or producers of certain drugs. All of these measures died with the 62nd Congress.

The following bills have beeen introduced in the special session of the 63rd Congress, which is still at work:

Senate Bill No. 1, introduced by Senator Owen, creating a Department of Public Health.

Senate Bill No. 117, introduced by Senator McCumber, to provide for the incorporation, control and government of Associations organized to carry on business, entering into or becoming a part of interstate commerce.

Senate Bill No. 153, introduced by Senator Bristow, to create an Industrial Commission.

Senate Bill No. 191, introduced by Senator Clapp, to prohibit unfair discrimination between different sections, communities or localities and unfair competition.

Senate Bill No. 279, introduced by Senator Smoot, to establish a Public Health Service, to transfer the Bureau of Census to and enlarge the activities of the present Public Health Service.

Senate Bill No. 667, introduced by Senator Cummins, to enlarge the powers of the interstate commerce commission.

Senate Bill No. 920, introduced by Senator Bryan, was a parcel post measure.

Senate Bill No. 929, introduced by Senator Bacon, was to promote the efficiency of the hospital corps of the United States army. This is known as the Bacon-Hughes bill.

Senate Bill No. 957, introduced by Senator Kenyon, defines and punishes lobbying.

Senate Bill No. 1028, introduced by Senator Crawford, prohibiting the issuing of revenue stamps to, and the receiving of, a special tax upon distilled and

fermented liquors, from persons designing to sell such spirits and liquors for use as a beverage in any state or territory or subdivision of any state or territory in which the sale of distilled spirits and fermented liquors for use as a beverage is prohibited.

Senate Bill No. 1034, introduced by Senator Owen, to prevent the transportation in interstate commerce of adulterated commercial feeding stuffs for live stock and poultry.

Senate Bill No. 1085, introduced by Senator Clapp, and familiarly known as the Freericks-Clapp bill, having been drawn by Mr. Frank H. Freericks, of Ohio, Secretary of the Section on Education and Legislation, and is for the purpose of providing price protection.

Senate Bill No. 2552, introduced by Senator LaFollette, to further protect trade and commerce against unlawful restraints and monopolies.

Senate Bill No. 2802, introduced by Senator Lane of Oregon, to authorize any farmer or association of farmers, fruit growers or others, to manufacture and sell denatured alcohol.

H. R. Bill No. 1, introduced by Mr. Hughes, to promote the efficiency of the hospital corps of the United States army.

H. R. Bill No. 31, introduced by Mr. Palmer, to permit the manufacture of denatured alcohol by mixing domestic and wood alcohol while in the process of distillation.

H. R. Bill No. 51, introduced by Mr. Raker, to make accessible to all the people the valuable scientific and thorough research work conducted by the United States through the establishment of a National School of Correspondence.

H. R. Bill No. 55, introduced by Mr. Lenroot, to create a tariff commission.

H. R. Bill No. 172, introduced by Mr. Martin of South Dakota, to regulate corporations engaging in interstate and foreign commerce and to create an industrial commission in the Department of Congress.

H. R. Bill No. 181, introduced by Mr. Humphrey of Mississippi, to prevent payment of special tax on retail dealers under an assumed or fictitious name.

H. R. Bills Nos. 186, 187, 188, and 189, introduced by Mr. Mott, to protect owners of trade marks, labels and similar property.

H. R. Bill No. 212, introduced by Mr. Austin, to prohibit interstate carriers from transporting products of any factory or mine in which convicts are worked.

H. R. Bill No. 1683, introduced by Mr. Steenerson, to prevent the manufacture, sale or transportation of imitated or misbranded articles of commerce.

H. R. Bill No. 1877, introduced by Mr. French, to amend Section 8 of the pure food law to compel the putting of poisons in special bottles, etc.

H. R. Bill No. 1914, introduced by Mr. Towner, to include books and pamphlets as entitled to parcel post rates.

H. R. Bill No. 1966, 1967, introduced by Mr. Harrison, are prohibitory measures relating to the use of opium for other than medicinal purposes.

H. R. Bill No. 1992, introduced by Mr. Barkley, prohibiting the issuance of permits, licenses or receipts for special tax, authorizing the sale of intoxicating liquors in prohibition territory.

H. R. Bill No. 2125, introduced by Mr. Clark, provides that no order or rule

of any department of the government of the United States shall have the force or effect of the law of the United States.

H. R. Bill No. 2919, introduced by Mr. Carey, for the establishment of uniform weights and measures.

H. R. Bill No. 2920, introduced by Mr. Carey, to promote the production of domestic industrial alcohol, increase the productive value of the land and maintain its fertile qualities through the establishment of small and scattered distilleries.

H. R. Bill No. 2954, introduced by Mr. Mann, is known as the Mann Anti-Narcotic bill.

H. R. Bill No. 3321, introduced by Mr. Underwood, is the tariff bill. This bill contains 344 pages.

H. R. Bill No. 3404, introduced by Mr. Stanley, to tax tobacco coupons, premium checks, etc.

H. R. Bill No. 3899, introduced by Mr. Carey, to amend paragraph 6, Section 7, of the Food and Drugs Act, by striking out the word "or vegetable."

H. R. Bill No. 3968, introduced by Mr. Hamil, prohibits the shipment of convict-made goods.

H. R. Bill No. 3987, introduced by Mr. Clark, to extend the franking privilege to literature published by boards of health.

H. R. Bill No. 4653, introduced by Mr. Sabath, is the old Richardson bill to amend the Food and Drugs Act.

H. R. Bill No. 4931, introduced by Mr. Dent, to prevent false advertising.

H. R. Bill No. 4981, by Mr. Lindquist, provides for the labeling, marking and tagging of all fabrics and leather goods and provides for the fumigation of the same.

H. R. No. 4982, introduced by Mr. Underhill, defining wine, imitation and carbonated wines, and for preventing adulteration and misbranding of wine.

H. R. Bill No. 5149, introduced by Mr. French, is a bill amending Section 8, of the Food and Drugs Act, in relation to the sale of poison.

H. R. Bill No. 5308, introduced by Mr. Hinebaugh, is to tax business of mail order houses and is one which will and should have the support of all the retailers.

H. R. Bill No. 5389, introduced by Mr. Rouse, is to reduce first-class postage to one cent per ounce.

H R. Bill No. 6282, introduced by Mr. Harrison of New York, is the National Drug Trade Conference Anti-Narcotic Bill.

H. R. Bill No. 6827, introduced by Mr. Adamson, to give Public Health service jurisdiction over sanitation of common carriers.

H. R. Bill No. 7152, introduced by Mr. Doremus of Michigan, for greater Public Health Service authority.

H. R. Resolution No. 33, introduced by Mr. Henry, was to provide for a standing Committee of Public Health and National Quarantine, to consist of twenty-one members, to be elected by the House, and that all legislation, affecting Public Health and National Quarantine, shall be referred to this Committee. This resolution was defeated.

Your Committee have not deemed it necessary to enter into a discussion of all

of these measures, as there seems to be little prospect of any of them being enacted at this special session of Congress, except the Tariff and Anti-Narcotic Bills, which have already passed the House and have the approval of the Administration. However, there is little doubt but that many of these measures will be up for consideration at the regular session of Congress in December, and if there is any information which anyone desires, in relation to any particular measure, we will be very glad to take it up and discuss it at this time as we have copies of all of them.

The decisions of the Supreme Court seem to have entirely upset all plans of price protection, except that of the agency plan, adopted by the Miles Medicine Company. These decisions have, however, in a manner, cleared the way by which it is possible to have enacted, legislation, whereby the retailer will be entitled to a living profit.

There was a time not long ago when the question of price protection seemed to relate, only, to the sale of proprietary remedies, but now it is a matter that is of great interest to the retailers in all lines of business and we feel that legislation of this character should not only have the united support of the retail interests but the earnest and hearty support of all of the branches of the trade.

All of which is respectfully submitted.

JOHN C. WALLACE.
J. H. BEAL.
W. S. RICHARDSON.

REPORT OF THE COMMITTEE ON NOMINATIONS.

The Committee on Nominations was convened immediately after the adjournment of the first general session on Monday afternoon and organization was effected by the election of John C. Wallace as Chairman and Caswell A. Mayo as Secretary.

Mr. Wallace took the chair and the following nominees were named:

For President:
Caswell A. Mayo, New York.
Charles Caspari, Jr.,* Baltimore.
Otto Raubenheimer, Brooklyn.

For Second Vice President:
L. D. Havenhill, Lawrence, Kas.
W. G. Gregory, Buffalo, N. Y.
J. O. Burge, Nashville, Tenn.

For Second Vice President:
C. Herbert Packard, Boston, Mass.
E. Berger, Tampa, Fla.
E. C. Bent, Dell Rapids, South Dakota.

For Third Vice President:
Charles Gietner, St. Louis, Mo.
Burton Cassaday, Indiana.
A. B. Huested, Albany, N. Y.

*Prof. Caspari later requested that his name be withdrawn, and the vacancy was filled by the nomination of Wm. C. Anderson of Brooklyn, N. Y.

For Member of Council (three to be elected):

Otto F. Claus, St. Louis, Mo.
M. I. Wilbert, Washington, D. C.
W. B. Day, Chicago, Ill.
F. W. Nitardy, Denver, Colo.
E. A. Ruddiman, Nashville, Tenn.
W. E. Bingham, Tuscaloosa, Ala.
R. H. Walker, Gonzales, Tex.
Gus C. Kendall, Meridian, Miss.

Respectfully,

JOHN C. WALLACE, Chairman.
CASWELL A. MAYO, Secretary.

REPORT OF THE COMMITTEE ON MEMBERSHIP.

A. H. CLARK, CHAIRMAN.

The usual efforts were made to secure new members. The various members of the committee in their respective states cooperated in securing members through the State Associations. The Nashville Branch conducted an extensive campaign over the Southern states. The Chicago Branch made a special effort in Chicago, and Professor Linton of Valparaiso, did likewise among the alumni of Valparaiso University. Those in Cincinnati, through the organization of the Cincinnati Branch, did fine work. Efforts were continued to interest the members of the various State Boards of Pharmacy, and a large majority of these men are now members.

Secretary Beal, as usual, has ably assisted the committee at all times.

Through these combined efforts three hundred and thirty-nine new members have been secured. A geographic summary of members elected since the last annual meeting and up to July 24, 1913, is appended, as is also a report from the Sub-Committee on Food and Drug Chemists.

From information furnished by the Treasurer, the complete status of our membership, August 1, 1913, is as follows:

Regular members	2,403
Honorary members	6
Total	2,409

In concluding this report the Chairman wishes to shatter precedent and make a recommendation to the effect that this committee, or at least the present organization of it, be done away with and that in the future its activities be directed from the Secretary's office. The appropriation heretofore applied to this committee could be well appropriated to the Secretary for clerical help, and the result would be to the advantage of the Association.

Respectfully submitted,

A. H. CLARK, Chairman.

Aug. 19, 1913.

GEOGRAPHICAL SUMMARY OF NEW MEMBERS.

Alabama	2	Nevada	..
Arizona	..	New Hampshire	..
Arkansas	1	New Jersey	2
California	4	New York	34
Colorado	2	North Carolina	1
Connecticut	2	North Dakota	..
District of Columbia	1	New Mexico	1
Delaware	..	Ohio	31
Florida	1	Oklahoma	2
Georgia	4	Oregon	2
Idaho	..	Pennsylvania	28
Illinois	29	Rhode Island	4
Indiana	9	South Carolina	..
Iowa	5	South Dakota	2
Kansas	1	Tennessee	18
Kentucky	4	Texas	9
Louisiana	3	Utah	..
Maine	..	Virginia	2
Maryland	..	Vermont	2
Massachusetts	7	Washington	10
Michigan	9	West Virginia	1
Minnesota	..	Wisconsin	4
Mississippi	3	Phlippine Islands	16
Missouri	12	China	1
Montana	..		
Nebraska	8		277

REPORT OF SUB-COMMITTEE ON MEMBERSHIP OF FOOD AND DRUG CHEMISTS.

The Sub-Committee on Membership of Food and Drug Chemists desires to make the following report:

Immediately on receiving notice of our appointment, the members of this committee got busy and prepared a general letter to be sent out to the food and drug chemists of the country.

A letter, strongly urging the desirability of food and drug chemists associating themselves with the A. Ph. A. by becoming members, and calling attention to some of the benefits to be derived from the work of the Association, and especially of the newly formed Section on Pharmacopoeias and Formularies, was sent to 659 persons, embracing administrative officials, food chemists, drug chemists, inspectors, and municipal chemists.

The results of our efforts do not at the present time seem very encouraging, as only about five or six applications received can be traced directly to that source, still we believe there are a sufficient number of food and drug chemists in the United States that are not members of the A. Ph. A. to warrant a continuation of the work of this sub-committee.

The work of the A. Ph. A. is of too great a value to the average food and drug chemist, inspector, etc., if they can only be brought to see it, for them to remain outside, and it appears necessary for this idea to be plainly and persistently impressed upon them. The Association needs such men in her ranks, for they represent a comparatively new phase of the Association's work, one that is bound to continue to grow in importance for years to come.

Perhaps by asking such prospective members to prepare a paper for the next meeting, the acceptance of such papers being contingent upon their becoming

members, might serve to induce some of them to join the A. Ph. A. that otherwise might not be influenced to join by simply presenting the advantages of becoming a member in an abstract way.

Respectfully submitted,

LINWOOD A. BROWN,

Chairman Sub-Committee on Membership of Food and Drug Chemists.

REPORT OF THE COMMITTEE ON STANDARDS FOR UNOFFICIAL DRUGS AND CHEMICAL PRODUCTS.

GEORGE M. BERINGER, CHAIRMAN.

The work of the Committee on Standards for Unofficial Drugs and Chemical Products during the past year has been more limited and less actual progress has been made than in the preceding years. In explanation of this statement, it is but fair to explain that the demands upon the time of a number of the members who are engaged upon the work of the revision of the United States Pharmacopœia precluded their giving the same amount of attention and time as hertofore given to the work of this Committee. Illness has compelled one of our most active members to temporarily discontinue his labors on the Committee, and death has invaded our ranks and has taken one of our active members. With the completion of the active constructive work on the Pharmacopœial Revision the members of this Committee can again divert their time from that labor to the necessities of this Committee, and it is hoped that in the near future more rapid progress in our work can be reported.

The expenses for the past year have been nominal. It is requested that an appropriation of the same amount as last year be made for the expenses of the Committee for the ensuing year. Attention of the Council is likewise directed to the necessity of filling the four vacancies occurring by expiration of the term of appointment, and likewise the vacancy on the Committee caused by the decease of Thomas P. Cook.

Since the Denver meeting, monographs covering the following topics have been presented and discussed in our correspondence:

Metaphosphoric Acid
Fresh Egg Albumen
Baptisia
Delphinium
Eucalyptus Gum
Mullein Flowers
Blackberries
Horse-nettle Berries
Agaric
Asclepias
Calcium Glycerophosphate
Dioscorea
Extract of Beef
White Ash Bark
Raspberries
Balsam Poplar Buds
Iron Peptonate
Juglans
Cow's Milk
Manganese Peptonate
Oil of Bitter Orange Peel
Oil of Bergamot
Hens' Egg
Peptone
Pumice
Sambucus
Strontium Carbonate
Lime Juice
Trillium
Fresh Egg Yolk
Iron and Manganese Peptonate
Juniper Berries
Mace
Menyanthes
Oil of Orange Flowers
Oil of Bay
Passion Flower
Potassium Chloride
Rennin
Senecio
Fresh Apple Juice
Trifolium
Verbena

In the near future, a number of these will be tentatively adopted by votes of the Committee. It is recommended that after such adoption they be referred to the Council and upon the approval of that body that they be printed in THE JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION.

In addition to the above list of topics the following items have been accepted by referees and their reports are anticipated in the near future:

Antimony Oxide
Burgundy Pitch
Chionanthus
Elecampane
Helianthemum
Mellilot Tops
Quinine Valerate
Strychnine Valerate
Galega
Orris
Parsley Root
Xanthoxylum Berries
Rumex
Antimony Sulphide
Caramel
Corydalis
Garlic
Hydrangea
Potassium Formate
Sodium Formate
Yeast, Compressed
Nepeta
Pimpinella Root
White Sandal Wood
Zedoary
Thyme

It is further recommended that as monographs for these articles are reported upon and tentatively adopted by the Committee, after discussion, that they likewise be reported to the Council for approval and publication. The object of this recommendation is to avoid unnecessary delay in the completion of our work and in the publication of the National Formulary.

As it is contemplated to include in the National Formulary Revision a number of formulas and drugs dismissed in the U. S. P. Revision, it will likewise be necessary either for this Committee or the Committee on National Formulary to give some attention to the standards for these drugs before they are admitted into the revised National Formulary, and such approved monographs should be reported as part of the work of this Committee and printed in the JOURNAL.

Respectfully submitted,

GEORGE M. BERINGER, Chairman.

W. A. PUCKNER,
M. I. WILBERT,
OTTO RAUBENHEIMER,
H. H. RUSBY,
L. D. HAVENHILL,
J. A. KOCH,
B. L. MURRAY,
FRANK R. ELDRED,
CHAS. E. VANDERKLEED,
HENRY KRAEMER.

REPORT OF THE COMMITTEE ON DRUG REFORM.

L. E. SAYRE, CHAIRMAN.

It will be seen, from former reports of this committee, that its efforts have been directed mainly to the cause of standardization, which term, in its broadest application touches acutely not only pharmacists and physicians but all who assume any responsibility in the practice of making, and dispensing, of medicine. Your chairman was honored by an invitation to speak on the work of this committee at the last meeting of the Kansas Medical Association. He said to the members of this association, what will bear frequent repetition: "If there are

any avenues left open for the exploitation of sub-standard material there are those ever ready to enter them and to supply this material at all prices and in any quantity. It is unnecessary to repeat that the reputable houses are too upright and honorable to stoop to the practice of ever carelessly standardizing their products or that they would yield to the temptation of supplying two grades—one for localities and places not frequented by official inspectors and the other for other localities frequented by these. It is also needless to repeat that reputable physicians in every possible way at their command secure for themselves remedial agents which would creditably pass inspection and meet the requirements of the standard. Nevertheless, the theory is tenable: any loophole, however small, for the introduction of inferior articles, furnishes an incentive for an evasion of the law. Such incentive will invite those, always ready, to take advantage of it. Experience has shown this to be true."

During the past year an effort has been made to further the work outlined in former reports, and while nothing startling has been accomplished, the attainment of one result is a source of some encouragement. Working in connection with the Legislative Committee of the Kansas Pharmaceutical Association, reformative legislation has been secured in that state. This was bitterly opposed by certain members of the medical fraternity who misconstrued its purpose, but in spite of their antagonism, a broader application of the food and drugs law was secured. The law enacted requires that all who dispense drugs, whether from private stock of physicians, or from other supply stocks, shall be subject to the same inspection as the druggist. In other words: Drugs and medicines now dispensed by physicians or by any others from private stocks shall be subject to inspection as provided in the Kansas Food and Drugs Law, and such drugs and medicines shall comply with said law. In this respect the law previously enacted (or provision for its administration) was weak and inefficient. In order to secure this little bit of legislation some missionary work was necessary among physicians. In this work we desire to acknowledge the help of those physicians who believed that every dispenser of medicine should be held responsible for those drugs and chemicals dispensed by him.

We desire also to acknowledge the help of the Legislative Committee above referred to, and that of the president of the Association, Mr. C. C. Reed. Without such combined efforts and efficient aid the proposed legislation would have been defeated. The future usefulness—greater usefulness—of this committee on Drug Reform—seems to indicate, from past experience, that a close articulation between it and all of the various national and state legislative committees, is not only essential but necessary. To accomplish this satisfactorily would require perhaps some slight expense.

This report would be incomplete did it not refer to two well-marked sources of opposition to drug reform. This was made evident when two sections of the bill, above referred to were considered. One of these sections contained a provision for the better regulation of the itinerant vender of patent medicines.

Chairman Eckstrand, referring to the antagonism of the patent medicine interests, says: "The committee became thoroughly convinced that the patent

medicine influence thoroughly dominated both houses"*—hence the defeat of this section. Another section of the bill provided that: Physicians who furnished medicines from private stock, should, except in cases of emergency, write and file a prescription for the same. Said prescription should be subject to inspection by proper authority. Chairman Eckstrand reports that this section was defeated by the active interest of a large manufacturing house "that made malicious, unwarranted and yet plausible misstatements as to the intent and purpose of the bill."

The future work of this committee if continued on the lines indicated by this and previous reports; if the work be extended into every state, it would doubtless yield results worthy of the approval of this Association. There are many other lines calling for activity. One especially which relates to the nostrum and fake remedy traffic. This is alarmingly on the increase. It is irritating beyond measure and of course militating against pharmacy. The professional pharmacist is constantly striving against these so-called remedies and yet he is seemingly forced by circumstances to be their distributing agent. An act has recently been passed in Kansas for the protection of lower animals, as it were. The act relates to the regulation of the sale of medicines and nostrums for the treatment of diseases of stock. It includes stock food tonics, condition powders, proprietary medicines, etc. Each ingredient, whether it be active or a diluent is required to be registered. Should we not be equally careful for the protection of higher (human) animals? Both medicine and pharmacy should take hold of this subject with courageous hands and by degrees control this traffic—it would be an important extension and broadening of the work of standardization which this committee will probably always keep in the foreground.

It is gratifying that our Association is contemplating a scheme for the establishment of a laboratory to determine, among other things, whether it is possible to draw a distinct line of demarcation between legitimate and illegitimate remedies.† Such a laboratory and such work would do much to advance the interests of the pharmaceutical vocation, and would doubtless yield tangible results in the direction of drug reform.

NOTE—Unfortunately this hastily prepared report could not be submitted to other members of the committee for their approval in time for the annual meeting. The chairman wishes to express his thanks for their valuable advice and assistance during the year.

ALBERT SCHNEIDER,
E. N. GATHERCOAL,
L. E. SAYRE,
Committee.

* Chairman Eckstrand's report is published in pamphlet form.

† See August, 1912, issue of the JOURNAL OF THE A. PH. A.

REPORT OF THE DELEGATES TO THE 1912 CONVENTION OF THE NATIONAL FEDERATION OF RETAIL MERCHANS.

FRANK H. FREERICKS, CHAIRMAN.

The delegates appointed to attend said convention were Frank H. Freericks and Drs. J. H. Beal and H. M. Whelpley. The convention was attended by F. H. Freericks and Dr. Whelpley, at St. Louis in October, 1912.

As its name would indicate, the Federation is exclusively by and for retail merchants. The St. Louis convention was largely attended, including representatives from almost every line of retail business. The various sessions of the convention were devoted to discussion and consideration of problems which confront in particular the retail trade in all lines throughout the United States. Subjects under consideration and discussion included: Need for Truthful and Honest Advertising; Necessary Changes in the Sherman Act, and Legislation Supplementing the Same; Parcel Post and Its Likely Effect Upon Retail Merchants in Smaller Towns and Cities, and various other subjects of special interest to the retail trade.

Your delegates to said convention found the efforts and objects of the Federation of Retail Merchants to be commendable, and worthy of support, in that when it seeks to better the conditions of retail merchants generally, this of necessity includes an effort to improve the condition of those who are engaged in the retail drug business.

We therefore recommend, that this Association continue its interest in the Federation of Retail Merchants in such manner and under such limitation as may be necessary under our form of organization, and subject to the directions of Council.

REPORT OF COMMITTEE ON PROCTER MEMORIAL.

W. F. HANCOCK, CHAIRMAN.

The Committee on the William Procter, Jr., Monument Fund, respectfully reports that they have completed the collection of money necessary for the erection of the monument in accordance with the preamble and resolutions adopted by this Association at its annual meeting in Kansas City in 1904. Sufficient has been collected and is in the treasury of the Association to assure the erection of the monument in the Smithsonian Grounds at Washington, D. C., by the time of the Centennial of the Birth of the Father of American Pharmacy, in 1917.

The time has now come to take preliminary steps and make arrangements for space and for the erection of the monument.

A sculptor of repute and responsbility has submitted to your committee a model with the price for casting and for erecting a monument that will conform to that of the Dr. Gross monument and which is within the means provided by

the subscribers. A committee of seven should be appointed and authorized at this meeting to organize and arrange the details, because two or three years will be required for its completion.

It is very important to have it ready for dedication in 1917 and we would recommend that this Association shall meet in Washington, D. C., at the time appointed for its dedication and then transfer it to the custody of the Government. This should be an occasion of great interest to the pharmacists and druggists of America, and especially to the members of this Association.

The dedication of this monument in Washington on the centennial anniversary of the birth of William Procter, Jr., would not only proclaim the lasting worth of the Father of American Pharmacy, but by linking his name with that of Dr. Benjamin Rush and that of Dr. Samuel D. Gross will preserve in history the true relations that should bind together the three branches of the healing art in America—Therapeutics, Surgery, and Pharmacy.

It will also call the attention of Congress and the people of this country to the dignity of our profession and its importance in the economic welfare and the health of the nation, at a time when constructive legislation for pharmacy is so necessary.

In closing the chairman wishes to compliment the efforts of two members of this committee—Dr. A. R. L. Dohme and J. E. Hancock—for their valuable assistance during the past year to complete the fund. Indeed the interest of the committee from its inception in this proposed tribute to the Father of American Pharmacy has been a pleasing feature of our work.

Respectfully submitted,

J. F. HANCOCK, Chairman.

HENRY KRAEMER, CHAS. CASPARI, JR.,
CASWELL A. MAYO, CLEMENT B. LOWE,
E. G. EBERLE. THOS. F. MAIN,

REPORT OF COMMITTEE ON PHARMACEUTICAL NOMENCLATURE

CASWELL A. MAYO, CHAIRMAN.

The interest in the subject of uniformity of pharmaceutical nomenclature has grown steadily since this committee was first appointed at the Boston meeting, as a result of a paper on the subject presented by its Chairman. While the reports of this committee have not dwelt particularly on the question of pharmacopoeial nomenclature, that phase of the subject has been taken up by M. I. Wilbert, who contributed a paper on the subject to the *American Druggist* for June, 1913. Mr. Wilbert has also prepared a paper on this subject for this meeting, which brings out the fact that comparatively slight modifications of existing pharmacopoeial nomenclature would bring about approximate uniformity and would at least prevent any possibility of serious error so far as chemicals are concerned. A more difficult problem is presented in the case of synthetic additions to the materia medica. Additions to our materia medica are frequently

made by manufacturers who can only make a profit on their labors by means of either patents or trade marks. The use of coined names offers in most countries the most direct and effective means for protection of proprietary rights. As a result we have a constantly growing list of names, many of which have similarity in sound or spelling to the names of totally dissimilar preparations, so different in potency that confusion is apt to, and frequently does, produce untoward results.

In view of the importance of uniformity in pharmaceutical nomenclature, your committee recommended that the delegates from this Association to the approaching meeting of the Eleventh International Pharmaceutical Congress at The Hague, be instructed to present to that Congress a proposal for the establishment of an International Commission on Pharmaceutical Nomenclature to take into consideration the nomenclature of all the drugs, medicines and preparations dealt in by the pharmacists, whether pharmacopoeial or non-pharmacopoeial, and to carry on an active propaganda looking toward the unification of pharmaceutical nomenclature throughout the world, with a particular view to the prevention of the adoption of names which through their similarity may have a tendency to cause errors in dispensing.

REPORT OF THE NATIONAL SYLLABUS COMMITTEE.

WILLIS G. GREGORY, CHAIRMAN.

This committee respectfully reports that the work of revising the National Pharmaceutical Syllabus has gone steadily forward during the year.

December 27, 1912, a meeting of the committee was held at Pittsburgh, with thirteen members of the committee present, and three proxies, making sixteen in all. Much progress was made at this meeting, agreement being reached on many unsettled questions.

Here at Nashville two meetings of the committee have already been held, and we can report that Chapter I, preface; Chapter II, introductory, preliminary and explanatory notes; Chapter III, Materia Medica, and Chapter IV, Chemistry, have been approved by this committee, and are in page proof ready for final editing.

Chapter V, Pharmacy; Chapter VI, reference works, and Chapter VII, textbooks and pharmaceutical periodicals, are in the hands of the committee in page proof and soon will be ready for final editing.

Chapter VIII, the index, will be prepared as soon as the other chapters reach their final form.

It is confidently believed that the second edition can be ready for distribution before the end of the present calendar year.

This Association is requested to vote its annual contribution to the expense of the committee.

REPORT OF THE COMMITTEE ON DRUG MARKET.

EDGAR L. PATCH, CHAIRMAN.

Examination of the records available would indicate the general improvement in conditions that should be expected from continued working of pure food and drug legislation.

The most interesting development of the past year has been the finding of many tablets and tablet triturates different from their labeled strength. In the case of non-volatile ingredients this would seem to indicate carelessness on the part of the tablet workman; in other cases it may be due to change in the tablet since it was made and bottled. In some instances it may be due to faulty sampling. If pills or tablets are purchased of a retail pharmacist in small lots, it might chance that variable results would be obtained. If an original package of 100 is purchased, the entire 100 weighed and the assay made on an aliquot part, such assay should be considered to fairly represent the lot bottled. Many substances are called for in tablet formulas that are subject to change in quantity by oxidation or evaporation.

Phosphorus can be kept unchanged in a coated soft pill mass, but soon oxidizes in a tablet mass, so that with the full quantity carefully put into the tablet no test for free phosphorous can be obtained soon after being made.

In some formulas Creosote and Carbolic Acid can be so combined as to be fairly permanent. In others it is impossible to prevent their volatilizing.

The Essential Oils and Menthol gradually disappear. While such substances as Paraldehyde and Chloroform can be emulsified and placed in a cut lozenge in noticeable proportions, they cannot be retained in compressed tablets or lozenges and formulas calling for 5 minims of Paraldehyde cannot be expected to contain the product even if put into the original powder before compression.

Criticism has been made of the use of Talc as a lubricator in tablet work, but either small percentages of Talc, of Boric Acid or of Paraffin must be employed to run the tablets. The Talc is insoluble and inert and in the small proportion used should not be considered objectionable. The Boric Acid used where tablets are designed for clear solution, is in such small proportion as to have little therapeutic action.

With the present custom of giving tablespoonful doses of paraffin oils three times daily as a mild laxative it is hard to conceive of any harm to come from the small quantity used in tablet lubrication. With the most elaborate system of checking formulas and tablet weights it may happen that the individual machine man may be inattentive to his duties without the knowledge of his foreman or employer, but there should not be an extreme variation of more than 10 percent above or below the labeled strength from any other cause.

The following table gives machine record and average weight and assay of a few tablets taken at random from stock:

	Should weigh	Average of 100	Assay
Ammon. Chloride 5 grains	0.325 G.	0.334	5.08 grains.
Bismuth Subnitrate 5 grains	0.397 G.	0.387	4.60 "
Salol 5 grains	0.435 G.	0.400	4.61 "
Strychnine Sulphate 1-30 gr.	0.093 G.	0.0926	1-30 "
		(30 gave 1.027 grains)	
Codeine Sulphate 1-4 gr.	0.098 G.	0.0994	1-4 "
		(each 0.253 grains)	
Sodium Bromide 5 grains	0.325 G.	0.3349	5.08 "
Terpin Hydrate 2 1-2 grains			
Heroin 1-24 grain	0.178 G.	0.1763	1-28 "
			(no correction for process)
Quinine Sulphate 2 gr.	0.152 G.	0.1524	1.952 grains. ($7\ H_2O$)
			1.992 ($8\ H_2O$)
Soda Mints			
(3.87 grains Sod. Bic.)	0.286 G.	0.283	3.9 Sod. Bic.
Sodium Bicarb. 5 grains	0.357 G.	0.360	5.005 grains.
Iron, Arsen. and Strych. No. 1	0.137 G.	0.138	1-60 "
(Strych. 1-60 gr.)			(60 gave 0.988 grains)
Migraine No. 2	0.250 G.	0.255	2.71 grs. Acetan.
		Caffeine and Camph. Mon.	0.25 "Citric Ac.
	Should give 2.75 grains and 0.25 grains.		
Nitroglycerin H. T. 1-50 gr.	0.027 G.	0.027	99.73%
		(Lot 6 years old 75.3%)	

Since the standard has been lowered on Ipecac Root the quality has been lowered and the price remains at the same relative level. Ten years ago lots assayed from 2.66 percent to 2.9 percent. The proportion of stem has gradually increased, lowering the assay. Average assay in 1911, 2.2 percent; 1913, 1.96 percent.

Aspirin tablets have had considerable attention. It has been stated by some authorities that nearly half of those sold are made from Acetyl Salicylic Acid other than the legal Aspirin. With 5 grain tablets offered in a large way from Acetyl Salicylic Acid at a cost of 65 cents per M., while from Aspirin the cost must be five or six times as great, there is a strong incentive to substitute. W. C. Alpers found tablets weighing between 5 and 6 grains to contain but 2 grains or less of Aspirin.

In this connection it is well to call attention to the unreliable character of some testimony as to the activity of preparations. A single bottle of tablets from a lot of several hundred thousand may be complained of, while assay shows the contents of the bottle to be true to label.

Dr. Rusby reports "All things considered, the year has shown a further improvement in the quality of drugs. Belladonna root and leaf, scopola, gentian, dandelion, sumbul, convallaria, colchicum root and seed, barberry bark of root and stem, quebracho, both varieties of chamomile, pulsatilla, scoparius, artemisia, absinthium, coca, cola, stramonium, nux vomica, guaiac and guarana, beside some others to be mentioned later, have been almost unexceptionally good so far as my experience has gone and so far as relates to importations. Brokers' samples of inferior goods offered in the hope of finding a buyer, are not here considered.

On the other hand there is much to be desired as to the genuineness and quality

of Russian ergot and Russian anise, cut althaea, inula, pareira brava, cramp bark, cascarilla, santonica, cannabis, marjoram, horehound, matico and buchu."

Acacia. Used for many technical purposes, as by lithographers, bookbinders, textile manufacturers, in mucilage, etc., as well as in medicine, many grades are imported. Six grades under the designation of "Gum Arabic"—firsts, seconds, thirds, fourths, sorts white, sorts amber, one as "crude gum," one as "Gum Acacia" and the ninth as "Insoluble Gum." All but the higher grades must be marked "Not U. S. P. for Technical Purposes Only." Only the highest grades are suitable for making emulsions. Acacia may have some food value, but the chief purpose in its use for the manufacturer of confections is its adhesive properties and as a filler.—L. F. KEBLER.

Acid Tartaric. Imported product liable to contain lead.—DRUG LAB.

Very dirty—unfit for use.—E. L. PATCH.

Aconite Root. A wide range of alkaloidal contents is found. Six lots assayed from 0.31 to 0.40. One lot wormy, decayed and spongy, gave by assay of carefully garbled samples only 0.068 and 0.088 percent. Eighteen bales were Japanese Aconite not recognized in the Pharmacopoeia. One lot of spurious gave 0.51 alkaloid. One lot, not A. napellus, gave 0.27 percent alkaloid, 3.75 percent ash. Thirty-three lots, some of which consisted of sixty bales, gave alkaloidal contents of 0.41 percent to 0.99 percent. Those examined for ash gave 3.8 percent to 5.25 percent. The lot assaying 0.99 percent was very small root, contained 30 percent of stem and 10.4 percent of sand and foreign material. It did not answer U. S. P. description for dimensions or percent of stem, but assayed the highest of any of the samples reported. Another sample containing an excess of stem assayed 0.67 percent. In many cases the course pursued was to admit the goods on guarantee that correct assay would be attached to bales.—L. F. KEBLER.

0.37 percent, 0.45 percent, 0.486 percent.—E. L. PATCH.

Agaric White. Was of good quality—1.5 percent ash.—L. F. KEBLER.

Cape Aloes. Four lots were of good quality.—L. F. KEBLER.

Aloes. The practice of importing Moka or Stinking Aloes under the name of Socotrine, so common last year, has been discontinued.—H. H. RUSBY. One lot (aloes in bulk) contained 16.4 percent moisture, 0.1 percent ash and was almost completely soluble in water. It contained an excessive amount of gummy matter, did not comply with U. S. P. and was rejected.

	Moisture	Water insol.	Ash
Zanzibar in skins	7.47%	41.03%	1.98%
Aloes in monkey skins	7.11%	19.1%	2.03%
Four Samples Aloes	9.6 to 23.8%	44.1 to 59.2%	
East India Aloes	17.92%	34.05%	4.8% was a thick viscous paste.

Aloes Socotrine. Fifteen lots examined and passed gave:

Moisture	Ash	Insol. in water	Insol. in Alc.
4.85% to 45.85%	1.2% to 5.67%	13.7% to 46.45%	(2) 11.8% to 16%

One lot was Curacao Aloes; one lot Mocha Aloes.—L. F. KEBLER.

Althaea. Most of this drug now appears cut into fine pieces or granules. This often looks beautifully white, but on scrutiny it is found coated with lime. —H. H. RUSBY.

One lot consisted of peelings of the root and did not agree with U. S. P. requirements. Was released on an affidavit that goods would not be employed in the manufacture of any food or drug commodity.—L. F. KEBLER.

Alum. Contains enough iron in most cases to discolor when mixed with substances containing tannin, salicylates, etc.—W. L. SCOVILLE.

American Hemp. 1.8 percent only of ether soluble resin.—E. L. PATCH.

Eckler and Miller do not find carefully selected samples to equal true Indian Hemp. The best tested 65 percent, others 50 percent and less, some extremely low. They do not think it should be made official.—AM. JOUR. PHARM.

Ammoniac Gum. One lot, acid number, 83; saponification number, 210; total Salicylic Acid, 4.97.—L. F. KEBLER.

Angelica Root. One sample of genuine gave: ash, 6 percent; loss at 110° C., 6.7 percent. One lot was prepared with glucose. One lot was prepared with sugar and glucose. One lot contained few mouldy pieces.—L. F. KEBLER.

Anise Seed. Fine gravel and pellets of earth are often found in anise, especially in the Russian variety. This product is mostly very impure indeed, whereas when pure it is a very sweet and good article. Not only does it contain large percentages of stones and earth, but there is usually a large quantity of coriander and many small black weed seeds. Practically all of it has to be cleaned before it can be admitted and even then it is none too good.—H. H. RUSBY.

Thirteen samples were of good quality, ash contents 6 to 6.8 percent. Four of doubtful quality gave ash contents 8.71 percent to 10.3 percent. Two contained 10 to 14 percent of foreign material. One gave 20.39 percent ash, and another 25.3 percent ash. The latter contained broken stone sifted to agree with the size of anise and these two lots were so grossly adulterated that they were refused entry. One lot seemed to have much foreign seed. Examination gave 92.17 percent pure seed, inert matter 4.78 percent, foreign seeds 3.05 percent. One sample contained 8.7 percent coriander seed. Another 12 percent of stems, sticks, coriander and other foreign seeds. One lot consisted of 84.7 percent anise seed, 8.6 percent foreign seed, 3 percent stems, 1.6 percent gravel, 2 percent other foreign material. A lot of 50 bales was damaged either by excessive heat, water or steam and had lost most of its activity. It was exported. One lot labeled Anise Seed was Fennel Seed. One consignment was 71.6 percent Anise Seed, 15.6 percent foreign seeds, mostly coriander, 12.8 percent stems, gravel and immature seeds, ash 11.5 percent. Four lots gave 9.76 to 21.4 percent ash. A portion of these was sifted and picked over and a satisfactory product resulted.—L. F. KEBLER.

Arnica Flowers. Two lots of good quality gave 7.05 percent ash. One sample was wholly spurious, being a species of Inula. Two lots were inferior and deteriorated, being seriously damaged by insects. Were unfit for medicinal purposes.—L. F. KEBLER.

Arnica Root. One sample was wholly spurious and had no relation to Arnica root. Another was grossly adulterated with spurious root and required garbling before it could be admitted.—L. F. KEBLER.

A thick and light colored, woody, much-branched rhizome or root has been mixed with this drug. It is at once noticed when seen, but bunches of Arnica are matted together with the spurious article in the center where it escapes notice.—H. H. RUSBY.

Asafoetida. Examination of some hundreds of samples gave alcohol soluble matter ranging from 3.9 percent to 81.27 percent, and ash from 2.2 percent to 75.4 percent. Lots have been allowed entry containing 35 percent of alcohol soluble material, with the understanding that the actual quality should be marked upon the cases and an equivalent amount used to give standard strength to all preparations. Several importers asked for admission of defective goods on the plea that they were to be worn about the necks of the colored people in the South to ward off disease. All lots containing less than 35 percent alcohol soluble matter were exported. Several lots have contained foreign resins determined by color reaction tests. Most of the foreign resin is galbanum, but one shipment contained ammoniac tears.—L. F. KEBLER.

The standards for this article are still most unsettled. Mr. Harrison, the English chemist, has produced figures to show that Dr. H. A. Seil's use of the lead number as a test is useless. He showed such a difference (as I now recall) as 15 to 180 in the lead number of different portions of Asafoetida. Mr. Harrison's claim is preposterous on its face. Such a difference could not exist in the same substance. The two portions must have represented entirely distinct substances. In asserting that two samples of Asafoetida show this difference he assumes that both are Asafoetida and since this is the very question at issue, he begs the question. Of course, if we are to start out by admitting that everything shipped in Asafoetida boxes is Asafoetida, then there need be no lead number at all, for portions of these contents consist of stones. There is the utmost need for some careful study of the origin and identity of Asafoetida et al. at the point of production. Meantime, we shall all be kept guessing, and one man's guess, under the circumstances, is about as good as another's.—H. H. RUSBY.

Po.	Ash	Alc. Ext.	Po.	Ash	Alc. Ext.
"	25%	52.5	"	26%	50
"	10%	67.5	"	20%	57
"	30%	43	"	12.5%	64
"	13%	64			

—E. L. PATCH.

Asparagus Seed. Two lots were offered as asparagus seed which were Corn Spurry, Spergula arvensis.—L. F. KEBLER.

Aspirin. Nearly 2,000,000 ounces of counterfeit Aspirin sold in U. S. annually. Even put up in exact imitation packages with same guarantee number. —H. A. METZ.

Tablets weighing 5 to 6 grains contained but 2 grains of Aspirin.—W. C. ALPERS.

Apiol. Adulterated with parsley oil. Green color is objectionable. Yellow color to be preferred.—LUTZ & OUDIN.

Bay Leaves. Ninety-two bales out of 184 were damaged by water and fire. Goods were destroyed.—L. F. KEBLER.

Beef Extract.

	Moisture	Na. Cl.	Proteid		Moisture	Na. Cl.	Proteid
1	18	19.4	30.99	5	20	9.02	47.6
2	18	22	36.56	6	20	9.89	51.87
3	18	8.49	42.38	7	20	9	47.69
4	18	14.	33.				

—E. L. PATCH.

Belladonna Leaves. Are subject to adulteration with Scopola leaves, poke leaves, chesnut leaves, oak leaves, belladonna stems and fruit. Some lots genuine but of physically poor appearance assayed 0.47 percent to 0.735 percent of mydriatic alkaloids, while lots of good physical appearance assayed but 0.19 percent to 0.21 percent. One lot containing 17.4 percent belladonna leaves, 33.3 percent scopola leaves, 8.2 percent stems and 41 percent of dirt and unsorted material, assayed 0.255 percent. Another 78 percent belladonna leaves, 7 percent poke leaves, 11 percent stems, 4 percent unidentified leaves, assayed 0.189 percent. Such lots were not considered proper for use as belladonna. Two lots largely of chestnut leaves, assayed 0.05 to 0.14 percent. One lot had 10 percent scopola leaves and 23 percent stem. One lot was belladonna fruit and twigs with fragments of leaves. Material imported as belladonna herb on account of the amount of stemmy material present often assayed well, ranging from 0.30 to 0.62 percent. Some lots packed when damp were quite mouldy, assayed from 0.072 percent to 0.31 percent. One lot had 24.6 percent of stem. The mixture assayed 0.20 percent, the stems 0.172 percent. Over 150 lots assayed from 0.168 to 0.733 percent.

	Alkaloid	Ash	Moisture at 110° C.
33 lots assayed.....	0.24 to 0.717%	5.93 to 21%	4.4 to 16.21%

—L. F. KEBLER.

Belladonna Root. Examination of over 125 lots from four to over 100 bales each, demonstrates that it is possible to obtain good root of the U. S. P. standard, but some good looking lots were deficient in alkaloidal strength. Assays ran from 0.149 to 0.75, but the greater number were standard or somewhat higher. Fifty lots assayed: Alkaloid 0.384 to 0.667; ash 4.52 to 8.50; moisture at 110° C. 1.5 percent to 10 percent. Quite a number of lots were adulterated with poke and scopola. One lot, nearly all poke root, assayed 0.02. Six lots badly adulterated with poke root, gave 0.15 to 0.422 alkaloid, 7.12 percent to 9.10 percent ash, 1.5 percent to 7.06 moisture at 110° C. Twelve bales containing from 13.5 to 27 percent crown root, assayed from 0.54 to 0.62 alkaloid. Another lot of 29 bales had 25 deficient in alkaloid, assaying from 0.25 to 0.44 percent. One lot was all scopola. One lot of 119 bales had 15 percent scopola in middle of bales, evidently added as an intentional adulterant. It is not practical to attempt to remove the adulterants, scopola and poke root, from Belladonna root.—L. F. KEBLER.

Benzoin. Is imported under the names Benzoin, Benjamin, Sumatra, Siam Benzoin, Benzol. Four lots of good quality gave 93.72 percent to 100 percent soluble in alcohol; ask 0.07 to 2.25; Benzoic Acid 11.99 to 15.4 percent. One lot was artificial Benzoin, differing materially from U. S. P. test. It was to be

used in the manufacture of shellac. Two lots offered as Refined Benzoin were purely artificial, tests showing presence of rosin and benzoic acid yielding chlorinated products. One shipment marked Pallenbang Gum Benjamin was an inferior product, not U. S. P. Alc. Soluble 84.9 percent, ash 1.5, Benzoic Acid 13.8 percent. One lot from Germany below standard and exported gave, alcohol soluble 72.7 percent, ash 3.06 percent. One lot contained 25 percent of bark fragments, ash 1.9 percent. The Pharmacopoeia states that "Benzoin is almost wholly soluble in five parts of warm alcohol." This is not very definite, and experience has shown that samples varying in quality from fair to good do not contain more than 15 percent of material insoluble in alcohol, and this was adopted as a standard. About 100 lots gave, alcohol soluble 64.3 percent to 99.5 percent, ash 0.09 to 2.15, Benzoic Acid 7.8 percent to 34.53 percent. The lot assaying 34.53 percent Benzoic Acid gave 1.04 ash and 86 to 88 percent alcohol soluble. Several lots contained foreign resins and an excess of alcohol insoluble material. —L. F. KEBLER.

Ranged from 55.8 percent to 86.5 percent alcohol soluble.—W. L. SCOVILLE.

Black Hellebore Root.

Ash 9.4	Ext. 30.6	Ash 7.6	Ext. 31.4
" 9.	" 24.2	" 10.	" 25.4
" 9.	" 24	" 9.	" 25
" 10.	" 24		

—E. L. PATCH.

Bryony Root. One lot of inferior quality gave 5.4 percent ash, moisture 12.5 percent at 110° C. One lot good quality 2.8 percent ash.—L. F. KEBLER.

Buchu. Both short and long varieties are scarce and high. The mixing of finely chopped stems has about ceased, but lots of spurious leaves have been occasionally offered. This is a very puzzling drug. The genuine species seem to vary widely in different localities so that it is not always easy to determine whether we have something different or not.—H. H. RUSBY.

Over 100 lots gave from 4.74 to 35.8 percent of stems. Several lots of good quality gave from 3.8 percent to 6.63 percent of stems. In view of all conditions it was decided that an acceptable drug "should not contain an excess of 10 percent of stems, foreign material or worthless leaves (meaning leaves containing virtually no active principles.)" The Pharmacopoeia makes no provision for stems, but no importations are offered free from stems. Two lots of Barosma crenulata, a variety rejected by the 1890 U. S. P. as of inferior quality, were offered. Three lots unfit for medicinal use contained a large amount of spurious buchu leaves. One lot labeled long buchu was wholly spurious. Two lots of long buchu had 45.5 percent stems.—L. F. KEBLER.

Burdock Root. Mostly of good quality. Ash 4.19 percent to 12.6 percent. One lot contained some mouldy pieces.—L. F. KEBLER.

Calabar Bean. Five lots satisfactory, 0.144, 0.18, 0.14, 0.305, 0.142. One lot deficient, 0.085 ether soluble.—L. F. KEBLER.

Calamus. Unpeeled calamus, which alone should be used in medicine, is much more frequently seen than heretofore, and the quality is always good.—H. H. RUSBY.

Calendula. Eight lots genuine and satisfactory in quality. One lot imported under name of "Feminella, extra fine," consisted of colored florets of Calendula

officinalis. The U. S. P. does not allow color. Ash 9.6 percent. Ash in satisfactory lots 7.6 percent to 8.5 percent. One shipment heavily adulterated with calcium sulphate and artificially colored. Ash 49.61 percent to 54.81 percent. One lot imported under name of "Calendula Sabe" contained .67 percent alcohol by weight. Calendula flowers, under the name of Feminella, have been prepared and imported into the U. S. for the specific purpose of adulterating Saffron.—L. F. KEBLER.

Canadian Balsam. One lot consisted of a dark colored product having the odor of Storax and contained a small amount of volatile material. Does not comply with the requirements of the U. S. P.—L. F. KEBLER.

Canella Bark. One lot, imported under the name Canella Alba Bark, was found to be genuine and good. Ash 7.76 percent, moisture 7.13 percent, fixed oil 6.14 percent, petroleum ether soluble 7.99 percent. One lot, imported under the name of Canella Bark Siftings, was highly contaminated and not fit for medicinal use. It was designed for incense.—L. F. KEBLER.

Cannabis Indica. This is almost always imported under the name of "Gauza." Very little of the efficient old Cannabis Indica is now seen, nearly all being African or "French" Guaza, probably nearly all grown in Madagascar. It exhibits hardly any resin, is bright green, and dry, light, and consists largely, sometimes to the extent of about half, of fertilized akenes. In spite of all arguments, we do not believe this to be nearly as efficient as the genuine, and recently some good experimenters have expressed this view.—H. H. RUSBY.

Two-thirds of lots examined were unsatisfactory. Some had been heated in curing and had a musty odor. Several lots were not grown in India. Some lots imported as French Cannabis came from Madagascar. Some lots contained 15 percent of seeds, some of which were mature enough to germinate. One lot imported as Madagascar Cannabis coincided more nearly with inert fibre hemp than the true Cannabis Indica. It contained seeds and was without medicinal properties. Ash in two lots was 14.8 percent and 15.34 percent. The U. S. P. states, "In the powder few or no pollen grains or stone cells should be present." No sample of Cannabis Indica has been met with which could be said to conform strictly with these requirements. Some contained a few, others a large number of stone cells. This standard has not been rigidly adhered to.—L. F. KEBLER.

Cantharides, Russian. 0.4 percent, 0.43 percent, 0.4 percent, 0.44 percent, 0.34 percent Cantharidin.—E. L. PATCH.

Capsicum. Alcoholic extract 23 percent, 21 percent, 24 percent, 19 percent. Ash 5.2 percent.—E. L. PATCH.

Mostly of good quality. Ash 8.77 percent.—L. F. KEBLER.

Cardamom Fruit. The question of the admissibility of so-called "Green Cardamoms," those which have not been bleached and which are of a pale greenish-brown tint, has been discussed. These are certainly of good quality and it would be a wise move for the Pharmacopoeia to alter its description so as to admit them. The admissible percentage of shell is another mooted question. A really good cardamom will yield 70 to 75 percent of seeds, but it seems reasonable to place the requirements a little lower.—H. H. RUSBY.

Cardamom Seeds. It has taken but one short year of insistence upon purity

to completely break up the former almost general practice of adding spurious seed to the extent of 25 percent to 50 percent.—H. H. RUSBY.

Of 17 cases 16 were of good quality. One contained many broken seeds, dirt, refuse and other foreign matter and was destroyed. One lot was 50 percent spurious seed. One contained 1.1 percent stones, 0.1 percent rice, 1 percent other foreign matter. In one the seeds had been affected by some blight or parasite and had turned to a reddish color. One lot had heated and fermented and lost its natural odor and taste. It was worthless. One lot contained 15 percent of little stones or grains of dried mud of same size and color as cardamoms. One lot consisted of cullings of good cardamoms. One lot 36 percent of shells and does not agree with the U. S. P. Two samples of small and shriveled seeds mixed with full-sized seeds of bad color, gave 7.4 percent and 7.43 percent ash instead of the U. S. P. limit of 4 percent. Another sample gave 37 percent of shell. A good sample should not give over 25 to 30 percent of shell. Two lots contained 51.15 percent and 52.15 percent of Bastard Cardamoms and 2.25 percent and 3.8 percent dirt and other foreign matter—L. F. KEBLER.

Cascarilla Bark. Ash 8 percent, 12.8 percent, 6.6 percent, 7.4 percent.—E. L. PATCH.

The quality of this bark becomes steadily poorer. It is now mostly shavings and there is much wood shavings with it. Since it is nearly all used for incense, the fact creates little interest.—H. H. RUSBY.

Cassia. Sixty-seven shipments were of fair to good quality. Ash ranging from 1.85 percent to 4.99 percent. One lot was composed of scraps and sortings with a little admixture of spurious barks. Four contained a small amount of small stones and sticks. One was a low-grade Ceylon Cinnamon. One contained an excess of twigs, leaves and other foreign matter. One appeared to be a species of cassia or cinnamon, but not the kind commonly used. Much harder than common kinds, of a mucilaginous character and unpleasant bitter taste. One sample labeled "Africa bark," had a faint taste and was of poor quality.—L. F. KEBLER.

Celandine Herb. One lot very dirty and contained numerous weeds.—L. F. KEBLER.

Celery Seed. Ash 7.15 percent to 11 percent. Of 33 lots, three contained a small amount of foreign seeds, dirt and broken stems. One was of very poor quality, containing fine ground rock and giving 31.88 percent ash. One lot contained sand and gravel. One lot 19.72 percent of foreign seeds, stems, broken leaves, gravel and dirt.—L. F. KEBLER.

Chamomile. Of sixteen lots, one was neither "Chamomile" nor "Camomile." It was composed of leaves of a plant similar to tea plants. It grows in Greece and is used in making a brew, used the same as tea. Used especially in colds. One lot corresponds to a species of Teucrium in botanical characteristics.—L. F. KEBLER.

Chicory Root. Ash 4.2 percent to 15 percent. Moisture at 110° C. 8.4 percent to 9.4 percent. Two shipments were damaged by fire and water on the vessel. One had 905 bags good quality, 2095 bags damaged. The other had 1097 bags good quality, 2403 bags damaged. One sample showed latex tubes

and vessels of fig. One shipment was filthy and decomposed. Had been water-soaked.—L. F. KEBLER.

Cinchona Rubra. For years practically all of the bark so-called was only a hybrid, but recently, and especially for a year past, fine quill bark of pure Succirubra has frequently been received.—H. H. RUSBY.

Most of the Cinchona bark imported is satisfactory. Alkaloids 4.28 percent to 9.68 percent, ash 1.36 to 6.55 percent, moisture at 110° C. 6.5 to 10.5 percent. One sample was a little dirty. One lot was deficient in alkaloid, 0.605, ash 29.4 percent, moisture 12.10 percent. One lot very inferior, contained much foreign tissue and but a small percent of Cinchona, alkaloids 0.76, ash 24.87 percent. Cinchona quills, alkaloid 7.85 percent, ash 3 percent, moisture 4.5 percent.—L. F. KEBLER.

Cinnamon Ceylon, Powd. Ash 8 percent, powd. ash 5.2 percent (U. S. P. limit 4 percent.)—E. L. PATCH.

Cinnamon. Two lots inferior (old)bark of Saigon Cinnamon. One lot not true cinnamon (Cinnamomum zeylanicum) but cassia bark. Water in which some samples stood ten or fifteen minutes showed trace of chlorides. Two lots contained much wood fiber.—L. F. KEBLER.

Cloves. Of 489 lots 363 contained less than 5 percent of stem; some as little as 3.9 percent. Other lots contained some 5.5 percent to 15.4 percent stem, and some practically all stem. These last were for use in distillation. Three lots of clove stem gave 7.43 percent, 8.01 percent and 8.09 percent ash.—L. F. KEBLER.

Coca. Fifty lots examined gave alkaloid from 0.59 percent to 2.208 percent, ash 6.65 percent to 12.62 percent, moisture 3.1 percent to 9.2 percent. One lot gave only 0.14 percent alkaloid.—L. F. KEBLER.

Cocaine. Some shipments labeled "Cocaine" proved to be "Crude Cocaine," containing 2.3 percent to 2.5 percent ash, 0.75 percent moisture, 92.2 percent to 95.43 percent alkaloids and also cinnamyl and isotropyl cocaine. Should have been labeled "Crude Cocaine, for manufacturing purposes only."—L. F. KEBLER.

Cocculus Indicus. Good quality. Ash 4.18 percent, 4.67 percent.—L. F. KEBLER.

Cochineal. Twenty-three samples examined gave from 2.23 to 12.76 percent ash. Only three were above the U. S. P. limit of 6 percent. Part of the shipments were silver gray and one black.—L. F. KEBLER.

Cohosh, Black. One lot satisfactory. Ash 11 percent, moisture 8.6 percent.—L. F. KEBLER.

Colchicum Root. Of 36 lots examined, 29 assayed 0.4 percent and under, 14 of the number being below the U. S. P. standard. Twenty-two assayed at or above the standard. The highest was 0.72 percent and the lowest 0.234 percent.—L. F. KEBLER.

Colchicum Seed. Eleven lots assayed from 0.5 to 1.12 percent. Ash of one lot was 2.5 percent.—L. F. KEBLER.

Colocynth.

	Absolute Ether Extract	Iodine value of Ether Extract	Ash	Loss at 110° C.
Lot 1	6.92	44	18.81%	4.9%
Lot 2	8.36	17.4	12.4	6.4

One lot labeled Colocynth apples contained:

Pulp	26%	Seeds 68%
Fixed Oil	1.75%	14.06
Loss at 110° C.	7.5%	6.2
Ash	8%	2.46
Water Insol.	0.75%	1.16

Other lots gave higher ether extractive or fixed oil, showing presence of seeds. The U. S. P. Colocynth (bitter apple in the index) is the pulp free from seeds The importation of powdered colocynth containing seeds, is illegal. Some lots yielded over 22 percent of ash. One lot old and brown consisted of unpeeled fruit. It has been generally believed in the trade that the character of pulp imported is decidedly inferior, similar to the colocynth, but not of the specific character of this drug. This will require an extended investigation.—L. F. KEBLER.

Collodion Flexible. 100 cc.=6 G. residue; should =10 G.—E. L. PATCH.

Coltsfoot Leaves. Genuine and satisfactory. Ash 18.7 percent, loss at 110° C. 10 percent.—L. F. KEBLER.

Condurango Bark. Satisfactory. Ash 8.28 percent to 12.30 percent.—L. F. KEBLER.

Conium Seed. Alkaloids 0.56 to 0.75, ash 0.92 percent to 6 percent.—L. F. KEBLER.

Copaiba. Thirty-nine satisfactory samples gave following results: Sp. gr. 0.935 to 0.997, refractive index 1.5025 to 1.5908, resinous mass 36 percent to 67 percent, acid resin 1.7 to 3.2. Seven contained gurjun balsam. Sp. gr. 0.928 to 0.995, refractive index 1.5018 to 1.516, resinous mass 40.4 to 62.3 percent, acid resin 2.2 to 3.1. Six lots contained paraffin oil. Four of these appeared to be African Copaiba. They were not completely soluble in glacial acetic acid. Sp. gr. 0.980 to 0.988, refractive index 1.5125 to 1.5128, resinous mass 65.5 percent to 70 percent, acid resin 2.8 to 3.1. One lot labeled Canine balsam proved to be Copaiba. One lot testing pure had a sp. gr. of 1.140. Twenty-seven lots contained from a trace to 25 percent of gurjun balsam. Five lots were African balsam. One lot contained added rosin. In many cases where it was known that the product was of proper origin the tests applied indicated that the commodity was adulterated. On account of these findings it was considered desirable to prohibit entry only when it was clearly established that adulteration existed. A complete investigation of this commodity from source of production to ultimate consumer should be made before we can accurately judge of quality of lots not flagrantly adulterated.—L. F. KEBLER.

Coriander. Some time ago a report was in circulation of this drug being heavily adulterated with vetch seed. The greatest watchfulness has failed to discover any such case.—H. H. RUSBY.

One lot had 12 percent of dirt and stems. Twelve lots were satisfactory, having less than 4 percent of foreign matter. One shipment contained many broken and immature seeds and 17.52 percent of foreign seeds. One lot had 6.3 percent of foreign seeds, stems and dirt. One lot was over-ripe and fit only for distillation. Three lots consisted of old and worm-eaten stock. One contained a large number of beetles, dead and alive, also foreign seeds, gravel, stems, etc.—L. F. KEBLER.

Coto Bark. Neither Coto nor Para-coto has been seen in the market during the past year, though many spurious lots of different kinds have been offered.—H. H. RUSBY.

Four lots marked Coto were wholly spurious. One lot marked "False Coto Bark" was true to name.—L. F. KEBLER.

Cubeb. Twenty-four lots were of good quality. Two gave 5.25 percent and 6.75 percent ash. Ten lots were unsatisfactory, containing over-ripe or immature poor quality berries, excess of stem and sticks and foreign matter. They were only fit for distillation. Thirty lots labeled "Cubeb with stems" consisted in part of immature and over-ripe berries, stalks and excess of stem. Were only fit for distillation. One lot gave, volatile ether extractive 10.84 percent, non-volatile 10.42 percent. One case was merely siftings, to which a few good berries had been added to improve the appearance. Two lots marked "Cubeb siftings" consisted of cubeb dust and coarsely ground stalks. Was unfit for use and was destroyed. On account of prevailing conditions it was ruled that a satisfactory product "should not contain in excess of 5 percent of stems and 5 percent worthless berries" (meaning berries containing little or no oil.)—L. F. KEBLER.

Cumin Seed. Five shipments of good quality. Foreign material 0.74 percent to 1.7 percent. Three importations slight excess of foreign material, 5 percent to 6.88 percent. Two lots contained an excessive amount of foreign material, sticks, foreign seeds, mostly plantain, a few coriander seeds and a small amount of mineral matter, total 16 percent and 21.8 percent. One contained seeds, which readily disintegrate, and was full of dust. Two contained considerable gravel, ash 12.9 percent, 13.08 percent. Two contained a large amount of undeveloped and unfertilized grains.—L. F. KEBLER.

Dandelion Root. Thirteen lots examined were of good quality. Four were inferior. One contained grass and other vegetable refuse, was musty and mouldy and unfit for use. One was ground and contained a large amount of inorganic matter, mostly small gravel, having the appearance of ground root. One contained 10 percent of foreign roots and tops. One was inferior in physical appearance, containing many small and worthless roots.—L. F. KEBLER.

Digitalis. New crop shows a great improvement in cleanliness of collection and care in preservation.—H. H. RUSBY.

Fifty lots were of fairly good quality. Ash in one lot was 7.8 percent.

One lot consisted almost wholly of large root leaves collected in the fall previous to season of flowering. U. S. P. demands leaves of second year at flowering time. One lot was carelessly dried. Two contained large amounts of grass, sticks and black leaves, showing improper curing. One lot of 18 bales had 7 unfit for medicinal use and 11 of good quality. One lot was very stemmy and carelessly dried. Two contained sticks and grass, but were otherwise satisfactory.—L. F. KEBLER.

Doggrass. Two lots genuine and good quality. One consisted of stems and root stalks of Bermuda grass, sometimes called Dog's Tooth Grass.—L. F. KEBLER.

Dry Herb. One shipment so labeled was a dried rhizome closely resembling Doggrass. The importer stated that it is used entirely by Italians for making tea.—L. F. KEBLER.

Elder Root Powder. Two shipments contained a seeming excessive amount of ash. Importers state that the root is excessively hard and of the toughest fibre and must be subjected to a milling process of longer duration than ordinary drugs. Ash 18.11 percent and 22.4 percent, moisture 5.39 percent and 8.06 percent.—L. F. KEBLER.

Ergot. This drug continues to be one of the most interesting of drug imports. The rigid application of standards applied last year to Spanish Ergot was rewarded by the supply this year of shipments almost all of which were fully acceptable. Such, however, has not been the case with Russian Ergot. This has again been mostly packed while wet, with the result of developing quantities of worms, besides fermenting and more or less decomposing the grains. Continued rejection of such ergot led shippers to clean it of its worms and worm dust before shipping, and to doctor its external appearance. The spoiled grains, of course, could be neither cured nor removed, so Russian Ergot has at best been quite poor. It is to be hoped that the reform that has been active among shippers will extend to the producers so that next year's crop will be of a different character.—H. H. RUSBY.

Sixty-eight lots were of good quality. Ash of two lots 2.55 percent and 2.57 percent. Twenty lots had been kept more than a year and in many cases had lost most of the internal purplish color of fresh ergot. Five lots were unsatisfactory, 27 contained 33 percent of immature and wormy pieces, 4 were brown inside, decayed and wormy, unfit for use. Nine lots small and immature grains which had been kept too long and had lost their strength. One looked as if it had been soaked in sea water and was unfit for use. One lot contained mouldy and wormy pieces. One was damp and slightly musty, but not mouldy. One contained many pieces soft and leathery, but of excellent external appearance. One had a large admixture of grains of rye, not ergotized. Most of the grains of ergot had lost their pinkish internal color. Seven lots were worm-eaten, mouldy and decomposed, unfit for use. In some instances it appeared that the product was damaged by undue exposure and if the character of ergot does not improve some steps must be taken to secure its shipment in sealed containers.—L. F. KEBLER.

Euphorbia Pilulifera. Four lots satisfactory. Ash of one lot 10.13 percent. One lot consisted almost wholly of stems and contained a large amount of other plant tissue which did not belong to the drug. One lot consisted in large part of broken leaves separated from the stem.—L. F. KEBLER.

Ether Nitrous Concl. 93.27 percent, 77.25 percent.—E. L. PATCH.

Fennel. The presence of fine gravel and pellets of earth in brown varieties of fennel has become very common. Ash determination is the best quantitative test.—H. H. RUSBY.

Forty-one samples were fair to excellent. Ash 7.2 percent to 8.6 percent. Thirteen samples were unsatisfactory, containing mouldy fruits, excessive quantity of foreign seeds, gravel, stem tissue, old or damaged seeds rendered worthless by insect attacks. One lot contained 23 percent of poor seed, dirt, stones, stems and foreign seeds. Four lots consisted of old and musty seeds with an admixture of weed seeds, sand, small gravel and dust. One contained 15 percent of dirt. Another 37.5 percent of stems and dirt. Two other lots contained excesses of stems, dirt and small stones. Ash 11.14 percent and 17.24 percent.

Fennel seed should not contain more than 5 percent of stems and other foreign matter and should not yield over 10 percent of ash.—L. F. KEBLER.

Foenugreek. Fifteen lots were of good quality, ash 2.75 percent to 4.9 percent, and 8 lots of fair quality containing from a small percentage to 8.6 percent of foreign matter.—L. F. KEBLER.

Flaxseed. Is mostly of good quality, containing from 3.2 percent to 4.7 percent of oats, chaff and foreign seeds.—L. F. KEBLER.

Galega Herb. One shipment, correctly labeled, had been completely spoiled in drying and was unfit for use. This drug is the chief constituent of Vaucaire obesity treatment.—L. F. KEBLER.

Gamboge. Most lots were satisfactory, with ash from 0.6 percent to 1.52 percent, alcohol insoluble portion 24.6 percent to 38 percent. One lot had an excess of alcohol insoluble portion amounting to 52.37 percent. One lot was peculiarly adulterated. A small stick of dark colored unfit gamboge was imbedded in the center of almost every one of the large lumps. After removal, alcohol insoluble 21.82 percent, ash 1.08 percent.—L. F. KEBLER.

Gelsemium. Ash 2.3 percent, moisture at 110° 7.10 percent.—L. F. KEBLER. Alkaloid 0.5 percent.—*E. L. PATCH.*

Gentian Root. Ten samples out of 33 were adulterated with cocoanut shells. The drug gave only 19.8 percent extractive to hot water instead of 30 percent to 40 percent.—APOTH. ZTG.

Of 53 lots 43 were satisfactory. Four were of fair quality. One was adulterated with peanut shells. Moisture at 110° C. 6 percent, ash 4.5 percent, insoluble ash 1.2 percent. One contained stone cells in abundance. Ash 5.73 percent, moisture 8.91 percent. One heavily adulterated with starch. One contained 5 to 10 percent of ground olive pits. One 3.8 percent of dirt and foreign matter. One was deficient in extractive matter. Gentian present was rotten and unfit for use. Moisture 6.68 percent, ash 8.94 percent, water soluble material 23.72 percent, alcohol soluble matter 29.5 percent.—L. F. KEBLER.

Ginger Root. Alcoholic extract 5.2 percent, 5.7 percent, 4.2 percent, 4 percent, 4.5 percent, 4.9 percent, 3.5 percent, 4.8 percent, 4.3 percent in whole root. —E. L. PATCH.

Eighty-three samples were satisfactory. Twenty-nine of these gave, ash 3.2 percent to 6.72 percent, ash insoluble in 10 percent Hydrochloric acid 0.17 percent to 1.89 percent, crude fibre 3.26 percent to 7.5 percent. Twenty-two lots were marked "Spent Ginger." Three gave:

Ash	Water soluble Ash	Alcoholic Ext.	Ethereal Ext.
1.47%	0.26%	6.20%	5.84%
1.47%	———	4.89%	4.98%
1.83%	0.24%	5.31%	6.37%

One lot contained dirt and other debris and was worm-eaten. One sample was colored with a coal tar dye corresponding to Cochineal Red—A.—L. F. KEBLER.

Glycerin. Manufacturers seem to be unable to make a glycerin that is free from volatile acids.—W. L. SCOVILLE.

Goldenseal. One sample, dirty, assayed, alkaloids 3.01 percent, moisture 8.3 percent.—L. F. KEBLER.

Powd. Hydrastis gave Hydrastine 1.6 percent. Whole drug, 3.48 percent, 3.44 percent.—E. L. PATCH.

Varied from 0.9 percent to 3.84 percent. Owing to high prices prevailing it should be watched closely.—W. L. SCOVILLE.

Guaiac Resin. Twenty lots were satisfactory. Nine lots gave alcohol insoluble matter 0.2 percent to 13.24 percent, ash 0.3 percent to 3.4 percent, acid number 72.5 to 81, rosin, none. Nine were unsatisfactory, alcohol insoluble matter 9.3 percent to 35.39 percent. Three gave ash 2.02 percent to 5.5 percent, and acid number 30 to 49.56.—L. F. KEBLER.

Guarana. 4.56 percent, 4.73 percent, 4.7 percent, 4.44 percent, 4.17 percent, 5.34 percent, 4.24 percent Caffeine.—L. F. KEBLER.

Hyoscyamus. One sample out of 37 assayed as low as 0.021 percent. The rest assayed between 0.058 percent and 1.00 percent.—W. L. SCOVILLE.

There has been a great deal of difficulty experienced by the trade in securing henbane of proper quality. From the results here given, however, it would appear that the situation has not been worse than in the case of a number of other drugs. One difficulty noted is that the present pharmacopoeial method will not extract all of the alkaloidal matter, but in our work this method is not strictly adhered to. Some good looking lots assayed low and others not as good in appearance and containing a large excess of sand, assayed above standard. Seventy-one samples assayed from 0.063 percent to .196 percent alkaloid, ash from 19.5 percent to 26 percent, moisture 3.5 percent to 10 percent. Fourteen lots assayed .031 percent to .091 percent, ash 28.16 percent to 69.78 percent. This last sample, more than two-thirds ash, assayed 0.053 alkaloid. Quite a number of lots were low in alkaloidal assay (0.02, 0.0275, 0.038, etc., to 0.063) and contained excess of ash. Some samples contained foreign leaves, among which were stramonium, horehound, plantago (25 percent). Nine consisted almost wholly of annual plants, but assayed from 0.074 to 0.163. One consisted of entire herb, including thick stems, and assayed 0.131.—L. F. KEBLER.

Henna Leaves. One lot was stemmy, but was not to be used for medicine. Analysis of one sample gave, ash 9.7 percent, moisture 2.5 percent, leaves 81.64 percent, stems 13.96 percent. One importation contained but a small amount of henna. Consisted largely of leaves having a large number of stellate hairs like those of the chestnut. Also considerable mineral matter present.—L. F. KEBLER.

Hops. One sample contained sulphur dioxide about 1900 mgms. per kilo. Sixty-nine lots were satisfactory. Twelve samples gave trace of arsenic. Less than 1 part per 700,000. Three gave no test for arsenic. Petroleum ether extract in nine samples ranged from 9.39 percent to 13.98 percent. One contained slight trace of alkaloidal substances. Moisture in lots tested was 5.29 percent to 7.22 percent. Resin 8.9 percent to 12.6 percent. Ash contents should not exceed 8 percent. In some cases it was above 16 percent.—L. F. KEBLER.

Horehound. Mostly of good quality. Ash of one lot, 15.8 percent. Three lots chiefly, if not wholly, spurious.—L. F. KEBLER.

Hyssop. Should consist of leaves and tops. One contained considerable stem

without flowers. One was entire herb chopped up. One was chiefly the thick stems cut into short pieces and was unfit for use.—L. F. KEBLER.

Inula. Much of this drug has been injured by exessive heat in drying. In some cases it was brown and semi-charred. This is a very difficult drug to dry without becoming mouldy, but artificial heat must be applied moderately and for a long time.—H. H. RUSBY.

Seven shipments were satisfactory and six not. One was partly decayed and had an excessive amount of butts. One was partly decayed and had mouldy roots with some crowns and stem bases. Two had been either distilled or overheated in drying. One was heavily covered with mould. One lot of 65 bales had been distilled to remove its essential oil, or it had been destroyed by too much heat in drying. Its medicinal value was destroyed.—L. F. KEBLER.

Insect Flowers. Six samples gave, ash 4.35 percent to 7.13 percent, moisture 5.5 percent to 8.34 percent. One inferior lot looked like sweepings and stems. One consisted of open flowers.—L. F. KEBLER.

Ipecac. Samples Po. 10 years old assayed from 2.66 percent to 2.9 percent.—JOURN. PHARM. CHEM., 1913, p. 163.

2.24 percent, 1.837 percent, 1.818 percent.—E. L. PATCH.

The Rio variety has almost ceased to arrive, the Carthagena variety being supplied at a lower price. This is now mostly what is known as Panama Ipecac. It is evidently the Carthagena variety, but it shows some marked differences from that of previous years. Adulterants have almost ceased to be seen in ipecac, as have long and detached ipecac stems. The commercial drug has been nearly perfected.—H. H. RUSBY.

Seventeen lots assayed from 1.42 percent to 2.63 percent alkaloid. Average 2 percent. Ash of four lots was 3.25 percent to 5.25 percent, moisture 8.3 percent to 9.3 percent. Two cases were low in alkaloid, 1.42 percent and 1.43 percent.—L. F. KEBLER.

Ipomoea. Met with a number of times under the name "Mexican Jalap." Some dealers held that the resin from this drug was as efficient as the resin obtained from Jalap proper and it was not improper to use it in place of resin of Jalap. This view is certainly not concurred in by the writer. Ipomoea is probably used for making false resin of scammony. One lot gave, ash 7.9 percent, moisture 5.87 percent.—L. F. KEBLER.

Iron Chloride Solution. 10.4 percent Fe. 9.28 percent excess HCl. The U. S. P. should be 4 to 5 percent excess.—E. L. PATCH.

Jaborandi. One importation was wholly spurious jaborandi unfit for medicinal use. Assay, 0.124. Sixteen lots satisfactory, assayed from 0.696 to 1.2 percent. Two lots gave, ash 7.45 percent, 7.9 percent; moisture 5.91 percent, 6.7 percent.—L. F. KEBLER.

Jalap Resin. One lot so labeled was not pharmacopoeial. Another precipitated with hydrochloric acid, gave a greenish blue with ferric chloride and contained excessive amounts of acid resins and saponifiable matter. Two other lots apparently not jalap resin.—L. F. KEBLER.

Jalap.

59 bags—	Total resin 6.66.	Ether Sol. Resin 0.75
8 bags—	Total resin 6.07.	Ether Sol. Resin 0.76

—S. K. F.

Total Resin 13.07	Ether Sol. Resin 0.77
Total Resin 18.43	Ether Sol. Resin 1.43
Total Resin 7.33	Ether Sol. Resin 0.83
Total Resin 6.63	Ether Sol. Resin 0.68
Total Resin 5.95	Ether Sol. Resin 0.75
Total Resin 7.27	Ether Sol. Resin 0.67
Total Resin 5.51	Ether Sol. Resin 0.71

—E. L. PATCH.

Some interesting lessons are to be learned by observing this drug. Its percentage of resin may be said to increase almost uniformly with the size of the tubercles, other things being equal. Plenty of jalap exists and is collected that yields 15 to 18 percent of resin, but that which our dry market receives is almost always just a little above the U. S. P. requirements, and so it will always be. If we were to lower this requirement the quality of imports would in the main at once drop accordingly and the converse would certainly be true. The supply will always work up or down according to the demand. The spurious Tampico jalap, or so-called Mexican scammony, has come mixed with the genuine and this must be watched for.—H. H. RUSBY.

Ranges from 2.5 percent to 8.87 percent resin.—W. L. SCOVILLE.

Twenty-one lots satisfactory. Resin 7.13 percent to 20.16 percent, ash 3.62 percent to 5.67 percent. One lot small tubers, immature and rather wormy, assayed 20.71 percent resin. Three lots were unsatisfactory.

1	Resin 3.2%	Ash 5.58%	Moisture 10.25%.
2	Resin 6.088		
3	Resin 5.55	Ether soluble resin excessive 2.17%.	

—L. F. KEBLER.

Juniper Berries. The crop has been poor, many immature or dry berries being found among the good ones. In several instances advantage seems to have been taken of this fact to add exhausted stock.—H. H. RUSBY.

Thirteen lots were fair to good quality. One was sloe berries. Three consisted largely of old, mature juniper berries (one 50 percent with sticks, stones and dirt) and were fit only for distillation. Six lots consisted largely of exhausted berries.—L. F. KEBLER.

Kamala. This now comes of uniform good quality instead of with 30% to 80% of mineral matter as formerly.—H. H. RUSBY. Seventeen lots were satisfactory. Ash 2.58% to 6.90%. Five lots were badly adulterated, containing either ground olive stones, bark, sand, quartz crystal, or dirt. Ash 28% to 58%. Two lots of genuine had excessive ash 9.35% to 12.6%. A package from a lot was examined and found satisfactory. The importer found samples from the same lot unsatisfactory. Re-examination showed that some packages were pure kamala, while others in the same lot were adulterated, showing the necessity of examining every bale.—L. F. KEBLER.

Keiselguhr.

	Color	Ignited loses	Water sol.	Acid Water sol.	Carbonate
1	Grayish	7%	3.2%	5.6%	Trace
2	Dark Green	14%	1.2%	27.2%	Excess
Lot No. 1 washed with acid water, then water and dried—		7%	0.5	1.50	None

—E. L. PATCH.

Kino. Ash 0.9% to 1.66%. Moisture of one lot 12.22 %. Alsohol insoluble excessive 36.2%. In good samples 11.55% and 12.10%.—L. F. KEBLER.

Lactucarium. The small amount received has been much better than that of last year, being either freer from mould or affected only superficially.—H. H. RUSBY. Ash 5.9% to 6.6%. Moisture 5.09%. Two lots consisted of rotten, mouldy fermented matter, unfit for use. Two others were moulded through and through and were totally unfit for use.—L. F. KEBLER.

Larkspur Seed. One lot of satisfactory quality. Ash 5.06%. 0.22% impurities, 0.181% gravel, 0.039% foreign seeds. Three shipments were not the larkspur seed recognized in medicine. Alkaloid 0.04%.—L. F. KEBLER.

Lavender Flowers. Mostly satisfactory. One lot was old flowers nearly odorless, mixed with stems and dirt of disintegrated flowers.—L. F. KEBLER.

Licorice Root. Large quantities of the cut root have arrived and the quality has been very good.—H. H. RUSBY.

Licorice. Two lots—Ash 5.05% and 5.40%. Moisture 6.07% and 8.35%. Extractive 26.32%, 27.88%. One consignment was mouldy and unfit for use.—L. F. KEBLER.

Lily Root. Five lots were filthy, decomposed and unfit for use.—L. F. KEBLER.

Lovage Root. Good quality, gave Ash in root 9.26%; in rhizome 7.06%. Moisture in root 7.8%; in rhizome 7.5%.—L. F. KEBLER.

Luplin. Ash 11.72%. Ash insol. in HCl. 6.71. Ether soluble 75.46%.—S. K. F. Following upon the refusal of the authorities to admit the old lupulin that the brewers would not take, a good fresh article is now commonly seen.—H. H. RUSBY. One lot gave 13.02% ash, but gave 69.75% ether extract, was to be used in beer making.

Lot 1.....	13% ash	72.9% ether extract
Lot 2.....	11.8% ash	68.39% ether extract
Lot 3.....	8.55% ash	78.59% ether extract

Fifty-three others gave—Ash 10.23% to 19.75%. Ether extract 63.96% to 77.82%. Five lots consisted of old lupulin, a large amount of sand, too many black and worthless particles, and were unfit for medicinal use. Ash 7.41% to 27.31%. Ether extract 59.04% to 75.16%. One lot labeled "Contains 7½% of ash in excess of U. S. P. requirements" did contain 45.42% of ash or 35% excess. Two other lots were old, spoiled and unfit for medicinal use.—L. F. KEBLER.

Lycopodium. This drug was formerly always contaminated with flour, usually in very small amount, and it was claimed that this resulted from storage in flour sacks or barrels. Persistent objection has developed a commercial article in which scarcely a grain of starch can be found. Of much interest was a shipment of corn starch so perfectly colored as to exactly resemble lycopodium. A

peculiar feeling between the fingers betrayed it, even before the microscope was applied.—H. H. RUSBY. Essentially pure, although some lots contained a trace of starch or fine pollen. One sample contained as high as 1.35% starch, while three contained enough to constitute an adulteration, 6.53%, 5% and 12%. Ash contents ranged from 0.17% to 1.96%.—L. F. KEBLER.

Manaca. Moisture 7%. Ash 1.4%. Alkaloids present. One lot was pareira brava.—L. F. KEBLER.

Marjoram. This drug, which now always arrives cut, has been made the subject of observation during the year, and much of it has been found adulterated with rosemary and other leaves.—H. H. RUSBY. Ash contents 11.6% to 17.23%. Two lots contained pebbles and grains of sand, and two others were good leaves but very dirty. Highest ash contents 25.21%. One lot contained 9.32% of foreign leaf, dirt and gravel; two others were mostly spurious, containing only fragments of marjoram.—L. F. KEBLER.

Marrubium. This drug has caused more trouble than almost any other. Various adulterants, but especially M. peregrinum, have been admixed. The admixture has been very unequal, some bales with none, others, of the same lot, heavily contaminated. The widest difference may be found in different parts of the same bale.—H. H. RUSBY.

Matico. The spurious variety, which a year or two since was said to be the only thing attainable, still arrives, but is yielding place to the genuine.—H. H. RUSBY. Six consigments of good quality gave—Ash 7.7% to 16.65%. Moisture 3.85% to 6.96%. Several lots were partly or wholly spurious. The spurious leaves were mostly P. mandoni and P. aduncum.—L. F. KEBLER.

Milk Sugar. Parry has examined 100 samples. He finds evidences of carelessness in manufacture indicated by color, odor, solubility and liability to decomposition. Five samples were cheesy on account of casein. Five were not entirely soluble on account of casein. Samples liable to decomposition or fermentation contained casein of poor quality. One sample contained 0.06 percent of magnesium salts. All the samples were of European origin.—CHEM. AND DRUGGIST.

Mustard. It is not generally known that black and white mustard frequently exchange color, while retaining all their other characteristics. This sometimes makes a good sample look very bad until it is carefully examined. The percentage of charlock in black mustard is very difficult to estimate and it is not remarkable that ground mustard is sometimes held up on this charge when the grinder is very positive that it is unfounded. He has simply not examined his whole seed with sufficient care.—H. H. RUSBY. Different lots contained from 80 to 99.09 percent white mustard seed. Brown and black seed 0.71 percent to 19 percent. Mineral matter 0.19 percent to 1.9 percent. One lot contained 15.5 percent of foreign seeds; another 21.8 percent of poor seed. Two lots contained 22.88 percent and 36.46 percent of foreign seeds. Thirteen other lots contained from 1.11 percent to 12.65 percent of foreign seeds, charlock, Chinese mustard, rape, lambs quarter, smartweed, false flax, millet, etc. One lot was almost wholly charlock with an admixture of rye and wheat. One other had 26.4 percent charlock and 1.5 percent of other foreign matter.—L. F. KEBLER.

Myrrh. Nine samples ranged from 25.1 percent to 38.7 percent soluble.—W. L. SCOVILLE. When in the ordinary form is of excellent quality, but Myrrh siftings have to be scrutinized with great care as they are apt to be loaded with fine fragments of other gums, beside gravel and dirt.—H. H. RUSBY. Satisfactory lots gave 4.02 to 10.25 percent ash. Several lots were siftings and gave excessive ash (11.75 percent to 13.83 percent) and alcohol insoluble matter (64.19 to 74.1 percent).—L. F. KEBLER.

Nux Vomica. Almost impossible to find drug assaying U. S. P. standard of 1.25 percent Strychnine. One sample Ext. Nux Vomica assayed 8 percent instead of 5 percent.—C. E. VANDERKLEED. 1.32 percent, 1.29 percent, 1.22 percent, 1.20 percent.—E. L. PATCH. Ash contents 0.9 percent to 1.88 percent, moisture 5.57 to 9.65 percent, Strychnine 0.9 percent to 1.6 percent.—L. F. KEBLER.

Olibanum, Gum. Five lots of good quality gave ash 0.95 percent to 3.69 percent. One lot gave alcohol soluble 74.8 percent.—L. F. KEBLER.

Ononis Root. Two lots of good quality gave moisture 8.52 percent and 9.30 percent; ash 5.94 percent and 11.01 percent. One lot was mouldy and unfit for use. Its activity is due to glucosides especially liable to damage from fermentation and such a product as this one should not pass into interstate commerce.—L. F. KEBLER.

Opium.

Gum	12.37%	11.19%	9.18%	11.04%
Powd.	11.16%	12.35%		
Gran.	12.40%			

2 lumps weighing about 4 lbs. contained two stones weighing 13 ozs.

E. L. PATCH.

Different lots assayed—Crude Morphine 13.2 percent, 12.03 percent, 14.5 percent, 12.6 percent, 10.1 percent, 11.6 percent. Purified Morphine 9 percent, 10.33 percent, 1.05 percent, 11.7 percent, 9.99 percent, 11.58 percent. Two lots of prepared opium gave little morphine, 1 lot 9 percent, 1 lot of powder, 5.2 percent. Were probably smoking opium. Thirteen lots gave from 8.93 percent to 15.9 percent morphine. One lot of deodorized assayed 15.68 percent.—L. F. KEBLER.

Origanum. Under this name with no qualifying word, only the purple topped Origanum vulgare should be supplied. During recent years other species, O. Dietamnis, O. creticum, O. onites, etc., have been substituted. Pressure being applied there has been a return during the past year to the genuine species.—H. H. RUSBY.

Papain. Is extremely variable. On an arbitrary standard samples ranged from 25 percent to 100 percent of the standard. No attempt to ascertain the relative strength of those testing up to standard. Samples below 50 percent of the standard were common.—W. L. SCOVILLE. Contains about 50 percent (53 percent) of bread crust. The entire mixture powdered:

1 part digested 20.2, fibrin Neut.
1 part digested 24.1, fibrin Alk.
Bread crust removed—1 part digested 36, fibrin Neut.
1 part digested 46, fibrin Alk.
The Bread crust had some adhering papain and tested
1 part digested 7.5, fibrin Alk.
No. 2 1 part = 23.1 parts fibrin (dry beef) neutral.
" 26.5 parts fibrin (dry beef) alkaline.

E. L. PATCH.

Pareira Brava. This drug is almost uniformly spurious, or adulterated, or mixed largely with stem pieces. One of the adulterants is very difficult to distinguish when cut into short pieces, but it contains much less alkaloid and fat.—H. H. RUSBY. One lot 9.4 percent moisture, 5.6 percent ash. One sample contained excess of stem. Root only is official. One lot was not Pareira Brava, nor had it any relationship or similarity to that drug.—L. F. KEBLER.

Parsley Seed.

Foreign matter..... 2.11%, 1.21%.
Total Ash..... 7.03%, 9.92%, 6.61%.

L. F. KEBLER.

Peppermint. One shipment was Spearmint that had been partially exhausted of its active constituents. Another had 10 percent of Spearmint leaves.—L. F. KEBLER.

Pepper, Black. Seventy-five lots gave from 3.65 percent to 6.42 percent of ash. They were of good quality.Ten lots gave 11.08 percent to 13.15 percent crude fibre. Three lots gave 10.04 percent, 10.87 percent and 12.88 percent of ethereal extract. The iodine number of one lot of extract was 126.3. A few lots were dirty and contained sand and other impurities. Ash in one lot 12.02 percent. Some lots contained excess of shells. One gave crude fibre 16.87 percent, Starch 29.97 percent, Ash 6.3 percent. One lot was worm-eaten and larvæ infested and was unfit for food or medicinal use. Four lots were wormy, mouldy and rotten. One lot had 30.5 percent seed, 9½ percent stems. Lots marked pepper shells and dust were true to name.—L. F. KEBLER.

Pepper, Red. Ash 7.93 percent, 8.49 percent, 9.32 percent, 7.95 percent, 9.05 percent, 7.95 percent, 5.68 percent, 8.40 percent. Ether Ext. 13 percent, 10.60 percent, 14.70 percent, 18.91 percent, 13.12 percent, 10.4 percent, 13.25 percent, 14.50 percent. Iodine No. 132.9, 138, 123.4, 107, 127.3, 125.2, 137.3. Seventeen other lots gave ash 4.78 percent to 10.02 percent. Ether extract 11.22 percent to 20.77 percent. Iodine No. 110.4 to 145.7. One lot was misbranded. One 5 percent short weight. One 75 percent of badly moulded and louse infested fruits. One 18 percent mouldy material, 27 percent seeds and 73 percent pods.—L. F. KEBLER.

Pepsin. Several lots diluted to standard with common powdered sugar instead of sugar milk. One lot was 1-2500 only.—E. L. PATCH.

Peru Balsam. Imitation balsam is very difficult to detect by present chemical methods available and substitution will probably continue for some time. Even if it conforms to the pharmacopœial chemical tests it should be rejected as not derived from Toluifera Pereiræ. The imitation balsam is not uniform in composition. Fifteen shipments of Peru Balsam gave sp. gr. at 25° C. from 1.14 to 1.154 percent. Cinnamein 50.32 to 66.3 percent. Iodine No. 46 to 66. Three samples contained rosin, which is a common adulterant. Two labeled "Artificial Balsam Peru" contained rosin. One had sp gr. 1.136. Cinnamein 54.80.—L. F. KEBLER. Five consignments labeled "Synthetic Balsam Peru" contained rosin, had high acid number (58.8 to 70) and excessive cinnamic acid (Cinnamein 55.01 to 60.67). Nine samples of good quality official gave acid number 22 to 75

Cinnamein 52 to 60. One shipment labeled "Artificial" should have been labeled "Imitation." It contained 10.8 percent of alcohol not declared sp. gr. 1.0432. The artificial or imitation products are exported from Germany, but do not comply with the Germ. Pharm. requirements. One lot was a mixture of tolu, rosin, cinnamein and undertermined matter. Many lots are imported as "Artificial," presumably for use in soap making. Two lots imported under the name of "Perugene" gave sp. gr. 1.1 to 1.102, Cinnamein 62.6 to 95.5; Acid number of one was 70.8 Saponification number 247. Perugene formerly contained rosin, which is omitted in later lots.—L. F. KEBLER.

Potassium Acetate. Lot of 50 lbs. had particles of glass in it.—E. L. PATCH.

Potassium Nitrate. 155 percent K Cl. 1.55 percent K Cl. 3.1 percent K Cl. (1.18 percent K Cl U. S. P. standard).—E. L. PATCH.

Protargol. Spurious packages offered showed 4 percent silver and contained over 60 percent insoluble matter. The genuine contains 8.3 percent silver and is entirely soluble in water.—W. C. ALPERS.

Pulsatilla. Ash 7.4 percent to 9.95 percent.—L. F. KEBLER.

Pumpkin Seed. One lot proved to be watermelon seeds. One sample was true to name, but quite old.—L. F. KEBLER.

Quassia.

Chips	Ash	2.2%	Ext. 6%
Ground	Ash	8%	Ext. 7%
Ground	Ash	3%	Ext. 3.3% (apparently partially exhausted.)

E. L. PATCH.

Ash 5 percent to 8.6 percent. One lot showed bitter principle to be practically absent and was mouldy and unfit for use.—L. F. KEBLER.

Quillaja. This bark now always arrives in the cut condition and is of good quality.—H. H. RUSBY.

Quince Seed. Thirty lots were mixed with foreign matter in proportions from 11.2 percent to 55 percent. It consisted of ground or broken bark, dried pulp of immature fruit, broken shells of Brazil nuts and pieces of dried and mouldy fruit. The ash of a good quality product was 4.11 percent.—L. F. KEBLER.

Rhatany. One sample of good quality gave Ash 3.44 percent. Moisture 5.65 percent.—L. F. KEBLER.

Rhubarb.

Shensi	46.2 dry Ext.	H. D. 42.8%	Shensi 39.8%
Canton round	44.7 dry Ext.	H. D. 41.8%	Shensi 36.1%
Canton flat	46.6 dry Ext.	H. D. 46%	
(Alc. 4 Water 1)		H. D. 40.2%	

E. L. PATCH.

The government having anticipated the proposed pharmacopœial requirement that not more than 15 percent of the pieces shall show a blackish or hollow interior when broken, there has been an immediate response in the form of greatly reduced percentage of such pieces.—H. H. RUSBY. Sixteen lots satisfactory. Ash too high in some cases. 12.23 percent to 37.18 percent. Moisture 4.48 percent to 7.49 percent. Two lots were from R. Rhaponticum instead of R. officinalis.—L. F. KEBLER.

Red Saunders.

Powd.....	37.5%	H_2O	1.2% ash in dried
	7%	H_2O	1.2% ash in dried
	44%	H_2O	1.2% ash in dried

E. L. PATCH.

Resin Scammony. Adulterated with Resin Guaiac.—ERA.

Roots. Thirty-two samples received at the port of San Francisco invoiced under this name. Of these, 19 could not be identified. All were shipped from China and were undoubtedly to be used by the Chinese. Two resembled Althæa root; two Aralia edulis; one the outer peeling of Pachyma Cocos; one cherry gum coated with benzoin; two sliced roots treated with burnt molasses or syrup; one a species of dock; one sliced roots of egg plant; one yam, or some species of Iris; one taraxacum or chicory. Two lots were mouldy and unfit for use.—L. F. KEBLER.

Rosemary. Ash 5.1 percent and 5.2 percent. One lot contained many small leaves, many dark colored and withered and 8.92 percent of stems and capsules. One, invoiced "Distilled Rosemary leaves" was true to name. Leaves very black and "dead." Ash 6.07 percent.—L. F. KEBLER.

Saffron. Wasicky (Pharm. Post.) has found a sample of saffron which was strongly adulterated with unbroken flowers of onopordon acanthium (cotton thistle). This adulterant can easily be detected microscopically by the presence of narrow connectives and peculiarly formed conglomerations of crystals, which are absent in true saffron.—DRUGGISTS CIRCULAR. It is not likely that so great a turnover was ever made in the quality of an article as has been made in the quality of Spanish Saffron imported into this country. A few years ago one could not expect to get a genuine and pure saffron. Now we have no expectation of getting anything else. The last attempt that has been made is that of causing the tissue to absorb a sugar solution. During this year several large shipments of Safflower have been offered as "Asafran," the Spanish name for Saffron.—H. H. RUSBY. Thirty samples gave moisture 6.58 percent to 16.83 percent. Ash 3.9 percent to 6.85 percent. Petroleum ether extract 1 percent to 4.19 percent. Thirteen lots contained from 4 percent to 8 percent added oil. Several contained excessive moisture 17.01 percent to 18.09 percent. Nineteen contained excess of inorganic matter giving ash 27.7 percent to 32.01 percent. The additions were Borax, Sodium Chloride, Sulphate and Carbonate and Potassium Nitrate. Several were colored with coal tar dye. One such gave 33.3 percent ash and 20.78 percent petroleum ether extract. Two lots were Safflower. One consisted entirely of florets related to those of the thistle, which had been artificially dyed to represent saffron and weighed. Ash 47.73 percent; 37 contained excess of yellow tissue 6.7 percent to 21.17 percent. Should not exceed 5 percent. Seventy gave water soluble 44.07 to 54.86 percent. (It is not stated whether the drug lost these amounts to water or yielded these amounts of aqueous extract.) The importations of 1912 were of better average than those of previous years.—L. F. KEBLER.

Sage. Some lots contained excess of stem (9.3 percent to 48 percent) Ash

of three lots—3.8 percent to 8 percent. One lot was Salvia triloba and contained excess of stems. It was unfit for medicinal use.—L. F. KEBLER.

Sambucus. Elderberry flowers are supposed to be those formerly official, from S. Canadensis, but when our crop is short the European species is imported. There seems no reason why it is not equally acceptable.—H. H. RUSBY.

Sandalwood. Ash—one lot 1.6 percent. One sample was not sandalwood but the wood of Amyris balsamique.—L. F. KEBLER.

Santonica. Many large shipments have arrived of a form of this drug that is puzzling. It so closely resembles the genuine that it may well be regarded as a young form of it and its odor is exquisite. On assay it is found to contain less santonine, often very little and sometimes none. It is shorter, greener and often has a short piece of peduncle attached. It is much in need of investigation.—H. H. RUSBY.

Sarsaparilla, Mexican. From the interior of Vera Cruz have arrived several shipments of a very thick blackish, woody and decidedly astringent Sarsaparilla, having the general features of Mexican. All that could be learned of the origin was that it was this variety from old plants. Its flavor is opposed to this view and we must regard it as of unknown origin.—H. H. RUSBY. Some shipments consisted of rhizomes or an excessive amount (73.3 percent) of stems and rhizomes. The pharmacopœia recognizes the roots only. One lot was totally spurious, consisted of some species of Aralia.—L. F. KEBLER.

Savory. Ash from 6.10 percent to 12.5 percent. One lot contained 33.8 percent of stems and 1.3 percent of blossoms, foreign leaf and gravel.—L. F. KEBLER.

Scammony Root. One importation gave 5.22 percent to 8.7 percent resin. Five importations were not scammony root but Ipomea, called Mexican Scammony at times. Resin from this source may have an action similar to scammony resin, but to represent a product as containing the drug when it does not, is an inexcusable deception.—L. F. KEBLER.

Scammony Resin. Eleven satisfactory lots gave 0.14 percent to 0.64 percent ash, 82.75 percent to 93.01 percent resin. One lot gave acid number of 55.7. Two lots invoiced as resin scammony gave acid number 19 and 28.75. Saponification No. 186 and 192.93. One lot invoiced as resin scammony was Gum Scammony. Three lots were low in resin. One gave 20.04 percent ether soluble resin and 3.86 percent ash.—L. F. KEBLER.

Scopola. Analysis of one lot gave 0.65 percent alkaloids; the other gave:

	Rhizomes	Roots
	93.7%	6.3%
Moisture	9.73%	7.63%
Ash	7.12%	7.66%
Insoluble Ash	0.37%	0.40%
Alkaloids	0.545%	0.43%

Twelve lots gave alkaloid 0.323 percent to 0.75 percent. Ash 5.85 percent to 6.62 percent. Moisture 4.3 percent to 10.3 percent. Two lots were somewhat mouldy.—L. F. KEBLER.

Senna, Senna Siftings. Persistent application of rigid requirements has accomplished what was declared impossible, the proper cleaning of this article so that it is capable of yielding a good galenical preparation, and this is what the shippers are now compelled to send here.—H. H. RUSBY. Seventeen shipments gave moisture 7.4 percent to 10.7 percent. Ash 5.6 percent to 11.8 percent. Extractive 41 percent to 48.2 percent. Two consignments invoiced as "Senna and Senna Leaves crude" were half leaf senna of good quality. They gave moisture 8.30 percent an 9.6 percent, Ash 11.9 percent and 12.5 percent, Extractive 45.3 percent and 46.3 percent. Two lots invoiced "Alex. Senna" and "Senna Leaves" should have been invoiced as "Broken Senna." One invoiced "Senna Leaves" was Senna Pods. Senna Pods are now substituted to some extent for the leaves. It is claimed by some that they are as active as the leaves. While there can be no objection to their use in medicine, they should not be used in place of leaves without its being known. Three importations were dirty with excess of foreign seeds. Ash 21.1 percent to 25 percent, Moisture 7 percent to 18.2 percent. Two of good quality gave: Moisture 8.2 percent and 8.27 percent, Ash 11.04 percent and 11.68 percent, Extractive 46.61 percent and 48.25 percent. Thirty-six lots of Senna leaves were of varying quality. Four were Cassia lanceolata, sometimes used as a Senna substitute. One of them was damaged in drying and infected with fungus. One lot contained 23.1 percent of stems, fragments of pods and seeds. Ash 17.8 percent. Some lots invoiced as Senna were Senna siftings, giving 7.45 percent to 8.9 percent moisture and 12.6 percent to 21.51 percent of ash. Standard senna leaves should not yield over 12 percent ash. Two lots of siftings gave 34.3 percent and 37.3 percent ash, 34.2 percent and 34.7 percent water extractive. Twenty-five other lots gave from 8.1 percent to 21.98 percent ash. In addition to the excess of ash this product frequently contained excess of stems, pods and seeds. Because these products were frequently used in pharmaceutical products without cleaning, it was found necessary to detain them until properly cleaned. Experiment by the department demonstrated that a 350 lb. lot assaying 17.5 percent ash passed through a combination gravity and sifting mill, removing the sand, gravel, seeds, stems, pods, etc., gave 65 percent of the weight of a satisfactory product yielding but 9.5 percent to 11 percent of ash. In view of these conditions it has been ruled that a satisfactory product must not give over 14 percent ash or foreign material other than ash in excess of 10 percent. Immense quantities of this product are imported annually and the importance of the problem is at once apparent.—L. F. KEBLER.

Simaruba Bark. One lot gave Ash 5.8 percent, Moisture 8.5 percent. Another gave Ash 16 percent, Moisture 8.8 percent. One lot was not Simaruba. The only resemblance is the color. It was probably a species of Esenbeckia.—L. F. KEBLER.

Smilax Rhizomes. One consignment was correctly labeled. The only use for this product is to adulterate Sarasaparilla. The pharmacopœia specifies that they should not be used, as they are worthless for medicinal preparations.—L. F. KEBLER.

Soap, Powdered. Guaranteed of extra quality. Not as white as usual. Does not make clear solution in warm alcohol and deposits on standing.—E. L. PATCH.

Soap Bark. Ash 9.1 percent to 10.23 percent, moisture 9.3 percent. One sample was an unknown bark resembling Soap Bark.—L. F. KEBLER.

Sodium Iodide. Contained 3.7 percent sulphate.—E. L. PATCH.

Sodium Phosphate.

1.79% Sulph.	1.52 Sulph.
2.9% Sulph.	0.88% Sulph.
2.58% Sulph.	free Sulph.
	trace Sulph.

E. L. PATCH.

Spearmint. Ash 9.7 percent to 12.42 percent.—L. F. KEBLER.

Spirit Camphor. Samples are still found defective, running from 40 percent to 83.3 percent of official strength.—MASS. B. of H.

Spirit Nitrous Ether. Samples tested from no nitrous ether present to 74 percent of official.—MASS. B. OF H.

Spirit of Lemon. Samples found in which no lemon oil was present. Were solutions if citral.—MASS. B. OF H.

Spirit Peppermint. Samples found from 12 percent to 84.2 percent of official.—MASS. B. OF H.

Squills. Difficulty has arisen concerning the color of this drug. That of a brown color with a brown fracture is claimed to be of good, even superior quality, but it certainly does not conform to the official standard.—H. H. RUSBY.

Corn Starch. Slight alkaline reaction.

5 G.+25 cc. H_2O + phenolph = 1.1 cc. H_2SO_4 N 10.
Slightly acid 5 G. = 1 cc. N. 10 K O H.
Slightly acid 5 G. = 1.1 cc. N 10 K O H.

E. L. PATCH.

Stramonium Herb. Six lots gave ash 14.7 percent to 19 percent. Thirty-two lots gave alkaloid 0.251 percent to 0.451 percent. One lot was low, 0.21 percent. One contained from 1 percent to 5 percent chestnut leaves. Assay—Ash 23.15 percent, Alkaloid 0.289 percent.—L. F. KEBLER.

Stramonium Leaves. One lot contained 10 percent of adulterant. Probably leaves of a species of prunes. Forty-three lots gave alkaloid from 0.294 percent to 0.49 percent. The alkaloidal standard (0.25 percent) may be a little low. One lot gave ash 20.5 percent, moisture 6.9 percent, alkaloid 0.294 percent. One lot gave 0.187 percent to 0.258 percent alkaloid.—L. F. KEBLER.

Strophanthus. The use of this drug must have declined greatly if we can judge by importations. Of late a new spurious species has been offered which is extremely difficult of detection, especially when mixed with an equal amount of the genuine.—H. H. RUSBY. Ash of one lot 10.4 percent, moisture 8 percent. Seven lots were satisfactory. One was false drug, either S. asper, or S. grata.—L. F. KEBLER.

Styrax. One lot not pharmacopœial. Contained but 48.73 percent of alcohol soluble material. Two satisfactory lots gave: Alcohol soluble 64.72 percent and 64.8 percent, Cinnamic Acid 21.3 percent and 25.56 percent, Cinnamein 45.5 percent and 59.47 percent. One lot gave 63.03 percent alcohol soluble, but only 1.54

percent of free and 3.93 percent of combined Cinnamic acid. One lot, not styrax but wholly spurious, had the microscopical character of an impure tomato paste.—L. F. KEBLER.

Tansy. Ash one sample 5.2 percent. One lot consisted of the entire herb, stem, leaves, flowers, etc. One chiefly of stems. The stem is virtually inactive.—L. F. KEBLER.

Thyme. Two lots excessively dirty. Ash 19.7 percent and 21.9 percent. One lot inferior, dark colored, mouldy and musty. Ash 16.5 percent. Two lots were origanum, one was wild marjoram and consisted of entire plant, including roots. Twelve lots were satisfactory, ash 7.4 percent to 14.14 percent.—L. F. KEBLER.

Tinct. Iodine. Thirteen local samples—1.97 G. Iodine to 6.06 G. to 100 cc. None up to standard. Variation 12.5 percent to 71.5 percent. Potassium Iodide lacking in four. Thirty-seven interstate samples—from 6.09 G. to 9.26 G. Iodine from 11 percent below to 35 percent above. No K I to 6.52 percent, from 100 percent below to 30 percent above.—L. F. KEBLER.

Tolu Balsam. Sixteen lots genuine and good quality gave—Acid number 93.5 to 126, Saponification number 170 to 318.2, Free Cinnamic Acid 11.84 percent to 41.44 percent, Cinnamein 4.68 percent to 9.9 percent. Thirteen lots of good quality gave free acid as benzoic 4.44 percent to 12.55 percent. Saponified resin 25.3 percent to 52.12 percent. Cinnamein 6.87 percent to 15.3 percent.—L. F. KEBLER.

Tragacanth. The offering of India gum under the name of Tragacanth has almost wholly ceased—H. H. RUSBY. One shipment labeled "Extra Superior" consisted in part, if not wholly of Hog Gum, which is not tragacanth. It was about No. 12 instead of No. 1 and sorts instead of superior. Ten percent of one lot was official. Twenty-three lots were satisfactory. One hundred and nineteen were too inferior for use in medicine. Six were India gum.—L. F. KEBLER.

Triticum. There have been occasional shipments, both whole and cut, of a thicker, paler, harder, tougher nearly tasteless grass rhizome under this name.—H. H. RUSBY.

Uva Ursi. Two lots very poor, contained over 83 percent of sticks, dead leaves and dirt. Four contained from 14.43 percent to 26.25 percent of foreign material. Three contained from 13 percent to 19.4 percent stem. Twenty-one lots were of good quality. One gave ash 4.69 percent, moisture 6.37 percent. Uva Ursi should not contain in excess of 10 percent of stems, foreign material or worthless leaves.—L. F. KEBLER.

Valerian. A number of shipments of Japanese Valerian have arrived. It has been hinted that this is not from Valeriana officinalis, but it is so clean and sound and fine in odor that it will require good evidence to show that it ought to be rejected.—H. H. RUSBY. One lot contained an excess of dirt. Ash 27.63 percent.—L. F. KEBLER.

Viburnum Opulus. Farwell, in the Bulletin of Pharmacy, has fully covered the situation concerning this drug, showing that there is no genuine bark of the kind in the market, all being acer spicatum.—H. H. RUSBY.

Wormseed. Ash 4.32 percent to 9.7 percent. One lot had lost much of its oil, but contained all of its bitter principle.—L. F. KEBLER.

Note. The contributions credited to Dr. Kebler are taken from department reports covering the years 1908, 1909, 1910, 1911 and 1912.

EDGAR L. PATCH,
LYMAN F. KEBLER, M. D.,
H. H. RUSBY, M. D.,
WILBUR L. SCOVILLE,
Committee on Drug Market.

DIET IN EPILEPSY.

"Freedom from epilepsy is often a matter of right living."—*Spratling.*

William Aldren Turner, the English authority, after exhaustive experiments, recommends the adoption of a purin-free dietary. The purin bodies, or substances constituted on a base C_5 N_4, are widely distributed among the common foods. They exist in all forms of meat extracts, in both the white and the red meats commonly used as foods, and in large quantities in certain glands, notably the thymus and pancreas.

Purin-free Foods. Recommended in epilepsy: Milk, eggs, cheese, butter, sugar, white bread, tapioca, rice, cabbage, cauliflower, lettuce, macaroni, strawberries, olive oil, honey, apples, grapes, nuts, raisins, dates.

Purin-poor Foods. Potatoes, onions, oatmeal, French beans, turnips, carrots, parsnips, rhubarb, kale, chicory, figs, the pulses, asparagus, codfish.

Purin-rich Foods. To be avoided in epilepsy: Salmon, halibut, plaice, beef, pork, mutton, chicken, veal, liver and sweetbreads.

If the patient shows loss of weight under a purin-free dietary it is advisable to give fish, or even lamb or mutton, occasionally.

Aged persons, whose digestive glands are atrophied, are unable to digest food which presents great difficulties to the action of their juices. Therefore raw milk, whipped eggs, tripe, lamb, rice, sago, tapioca, barley and soft-boiled eggs are the most digestible foods for them.—*Arnold Lorand, Old Age Deferred.*

Section on Scientific Papers

Papers Presented at the Sixty-First Annual Convention

THE CHAIRMAN'S ADDRESS—THE DETERIORATION OF PHARMACEUTICAL PREPARATIONS.

FRANK R. ELDRED.

The standardization of galenical preparations is such a well worn topic that I hesitate to refer to it in this connection, yet it is the logical starting point in the consideration of their stability.

The adoption of standards for these products marks the most important ad-

FRANK R. ELDRED, Indianapolis, Ind.,
Chairman Scientific Section, 1912-1913.

vance which has been made in their manufacture. Before such standards became possible many years had been devoted to the analysis of drugs; and later to the development of assay methods for determining the active principles which had been found. It is almost needless to say that an apparently unlimited amount of work yet remains to be done in both these fields. Our knowledge of the chemistry of many important drugs is so slight that we cannot even attempt

to develop chemical methods for their standardization; other drugs whose chemistry is better understood cannot be accurately assayed because suitable methods for this purpose have not been devised, and moreover, when we examine the assay processes which are in general use we find many imperfections. Steady progress has, however, been made in the development of methods and apparatus for assaying drugs and today the manufacturer may find that he is forced to use a process which he knows to be inaccurate because it was perhaps the best available when the Pharmacopœia gave it a legal standing. It is obvious that standards could not be established until fairly satisfactory assay processes had been agreed upon. The immediate effect of such standards was much greater uniformity in the strength of preparations standardized, for although the methods were not perfect and results not always as accurate as they should have been, yet the first serious attempt was being made to bring about uniformity and variations in strength became almost negligable.

After certain standards and methods had received official recognition the question of the stability of the standardized products began to receive attention. Previous to this time chemists engaged in this line of work had been so busy developing the assay methods, without which, deterioration studies could not be made, that no systematic investigation of the changes which might occur in such standardized products after their manufacture, had been undertaken. Many persons, forgetting the years which had been consumed in acquiring our present knowledge of drugs, seemed to think that it would be a simple matter to determine once for all the degree of stability of these preparations and investigations and discussions of this matter became the fashion. So much has been said and written that it was thought desirable to summarize our knowledge of the subjects, but a review of the literature, so full of contradictory "conclusions," seems to render this impossible except in the most general way. Even the results of investigations in many cases show the widest variance, for instance one chemist finds that some lots of fluidextract and tincture of chinchona show deterioration, while other chemists who have examined many lots of these preparations have found no evidence of deterioration. The occasional precipitation of alkaloids from cinchona preparations may be due to differences in the drug used, or to the conditions of manufacture and storage and only a careful study will determine the cause of this deterioration so that steps may be taken to prevent it. It is safe to say that in more than one laboratory, studies are being made with this end in view. We may confidently expect that whenever products are found to deteriorate every effort will be made to overcome this difficulty, and the fact that most of these preparations are so stable encourages the belief that in nearly all cases deterioration can be practically eliminated. Fluidextract of coca which is fortunately of little importance is the only fluidextract which has been uniformly found to deteriorate. Indeed the only general conclusion which can be drawn after a careful consideration of the literature is, that as a class galenical preparations are surprisingly stable. It is extremely unfortunate that a few writers acting as alarmists have tried to show that the reverse is true and I wish to call attention to some of their statements. We have been told that fluidextract of ergot is worthless after it is six months old, yet the clinical reputation of ergot in this country was probably largely established by the use of a fluid-

extract which the manufacturer aged for one year before bottling. The most careful studies of this preparation have failed to show any loss of strength in two years and it is difficult to say at this time how much longer it can be kept without deterioration as this can only be definitely determined by further aging tests. Very old samples of the crude drug have also been shown to be of average activity despite the more or less prevalent opinion that such drug is worthless. Again a recent writer in one of the pharmaceutical journals making use of the data of various investigators has arrived at some conclusions differing materially from those of the original authors and in no way justified by the data presented. This writer says that fluidextracts of ergot and digitalis should not be relied upon when over six months old, although no evidence whatever is offered in support of this statement. He also states that physicians should discard "as far as possible" all fluidextracts which are over two years old, while the data presented could in no way lead to this conclusion. Some manufacturers also have made capital of reputed deterioration to call attention to special means of preserving drugs from influences which have not definitely been shown to affect them. For instance, patents have been issued on a process for destroying the hydrolytic enzymes which cause the deterioration of digitalis preparations, and other special methods for preserving crude digitalis and its preparations have been exploited; yet Hatcher* has recently shown that fluidextracts at least twenty years old show no evidences of deterioration, while the crude drug preserved with ordinary care has been proven to be perfectly stable, thus rendering unnecessary any of the special methods of drying or preservation. Although Hatcher's results may not be taken as final, his careful work certainly shows how ridiculous it is to try to explain the cause or devise means for preventing deterioration which is not known to take place. This brings us back to the consideration of accuracy in methods of valuing drugs, for other investigators, using methods different from that employed by Hatcher, have fixed upon various rates of deterioration for fluidextracts and tinctures of digitalis. I have reminded you of our scant knowledge of the chemistry of many important drugs and of our imperfect chemical assay methods and these statements apply also, perhaps in less degree, to our knowledge of the pharmacology of many such drugs and in an even greater degree to the physiological assay methods. While we are attempting to study the deterioration of such drugs as ergot and digitalis by diverse methods upon which pharmacologists are not yet in accord we must not therefore allow ourselves to draw too definite conclusions. If conservative in this respect, we can acquire much valuable information from these studies in regard to the methods used as well as to the stability of the preparations. We cannot expect the same degree of accuracy in physiological methods that has been attained in chemical methods on account of the unavoidable variations in the animals used and also from the fact that it is a comparatively short time since physiological methods were first used for the standardization of drugs. No single method should be relied upon and results upon only a few lots should not be accepted as evidenced by the results on fluidextract of cinchona which have been cited. With these facts in mind an impartial study of the literature

*Journ. A. Ph. A., July, 1913, p. 876.

can lead only to the conclusion that there is no positive proof, with one or two important exceptions, that galenicals deteriorate in any serious degree.

Such important advances have been made in the manufacture of galenicals that the members of the pharmaceutical profession may well congratulate themselves upon this fact instead of agreeing with one of our friends who, upon the basis of his studies of ergot deterioration has depicted the situation as "horrible." I would by no means have you infer that I think we should be satisfied, for on the other hand I believe that it is the duty of any one engaged in the manufacture of medicinal preparations to strive with all the means at his disposal to improve both preparations and methods for testing them.

It has recently been very popular to advocate the dating of pharmaceutical products, and certainly no one will deny that this should be done whenever our knowledge is sufficiently exact to establish a period after which the preparation should not be used. Until this can be done nothing could be more illogical than to date such preparations. For example it has frequently been urged that digitalis preparations should be dated, yet Hatcher's work seems to have established the fact that these preparations will keep twenty or thirty years; what can be accomplished then by dating them? Surely preparations older than this will not be frequently used! If the dates of manufacture are placed upon preparations when no definite knowledge in regard to their keeping qualities is available, who shall decide when these preparations must be discarded? One writer who advocates placing the date of manufacture on certain preparations says that while it is very difficult to set a definite time limit on a preparation which deteriorates, yet the dating of such preparations enables the pharmacist to use his expert judgment as to whether or not a preparation is too old to be used. If this knowledge is not available to the manufacturer, where can we expect the dispenser to obtain the information? The answer is clear; the fact of deterioration must be determined from the preparation itself and not from any date appearing on the label. The fact that where deterioration occurs, different lots will deteriorate at very different rates, cannot be too strongly emphasized; this is due no doubt to differences in the preparation itself as well as to conditions of storage. If galenical preparations are not protected from extremes of temperature and from direct sunlight, and are not stored, well stoppered, in amber bottles more rapid changes must be looked for in the preparations. Differences in various lots of the same preparation and even in different bottles of the same lot are seen in a marked degree in solution of hydrogen dioxide, so that any time limit which could be established would, therefore, have the disadvantage of being too near in some cases and too remote in others, and the same condition will be found to exist with other preparations which deteriorate. It might be urged, that until we can absolutely demonstrate that a preparation does not deteriorate at all during a long period of years, we should give the consumer the benefit of the doubt and require the manufacturer to date his packages, but the fallacy of this argument is easily seen when it is considered that most of our information points to the great stability of such products and that if the pharmacist was arbitrarily required to discard preparations of a certain age the consumer would ultimately have to pay for this uncalled for waste. The careful pharmacist will in any event turn over his stock of pharmaceuticals

as rapidly as possible both for the purpose of keeping his stock fresh and to increase his financial gains; in this he is certainly to be encouraged.

Although there can be no doubt that deteriorated products have been dispensed and will be dispensed in the future, conditions are rapidly improving and, indeed, have never been as serious as many writers lead us to believe. It is undoubtedly true also, that improvements in manufacturing processes will keep pace with improvements in analytical and pharmacological methods, so that as fast as the fact of deterioration can be established, steps will be taken to overcome the difficulty. Let us not forget that even though methods are imperfect and preparations may occasionally deteriorate the resulting variations in strength will in most cases be much less than the variations which would occur in unstandardized preparations. We are therefore making good progress and a little patience only is required until the bugaboo of deterioration will be, in one way or another, overcome.

DISAPPEARING DISEASES.

Dr. Guilfoy, the Registrar of Vital Statistics of New York, has recently published some interesting figures from former records showing what modern methods have done in the way of abolishing certain diseases. Asiatic cholera was formerly a frequent visitor to the city, there being 5,000 deaths from this scourge in Manhattan and the Bronx in 1849; 2,500 in 1854; and 1,100 in 1866. During the last thirty-six years there have been only 11 deaths from this disease. Typhus fever was prevalent from the year 1868 onward, there being 200 deaths attributed to it in 1893. If the same death-rate from malarial fever had prevailed in 1912 as in the period from 1880 to 1890, there would have been 1,400 deaths from this cause; the number that actually did die from it was 20. The most striking conquest has been made in the case of smallpox which was practically always prevalent prior to the year 1876. Since that time the epidemics have become milder and of shorter duration until last year there were only two deaths from this disease in a population of over 5,000,000 people.—*Journ. A. M. A., V. LX*, 842.

Section on Education and Legislation

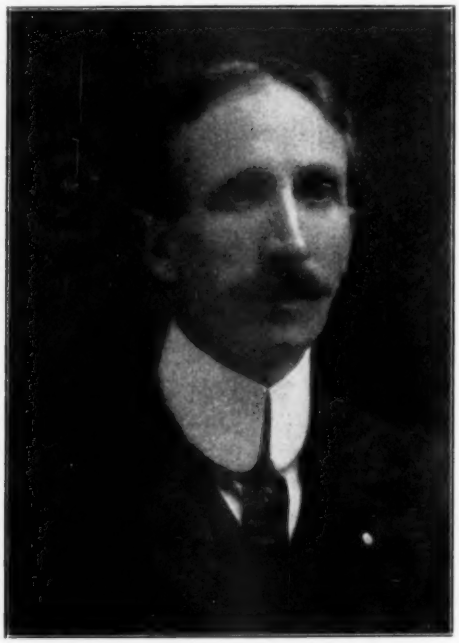
Papers Presented at the Sixty-First Annual Convention

THE CHAIRMAN'S ADDRESS.

WILBER J. TEETERS, IOWA CITY, IA.

There are two great problems before American pharmacy today—Education and Legislation.

There are to be sure other problems that press for solution and which to some may seem to be of equal importance, but the basis of progress must come through education in the broad sense of the term and sane legislation.



WILBER J. TEETERS, Iowa City, Ia.,
Chairman Section on Education and
Legislation, 1912-1913.

The influence of the work of this section is most important in helping to create the proper attitude towards education and its needs and the influence it exerts in moulding public opinion so that it is possible to enact reasonable and just pharmacy laws throughout the various states.

By education we do not mean simply the work done by colleges of pharmacy in the training of pharmacists, but the general increase of knowledge of medical

and pharmaceutical subjects gained through journals, magazines, science courses in our public schools and colleges, pure-food laws, the publicity of the American Medical Association of nostrums and quackery, the demand for truthful advertising and many other sources open today for general education in these and kindred subjects to the reading and thinking public.

The day of mysticism in medicine and pharmacy is past and the Jovian symbol is no longer regarded as a prayer to unknown Gods but is taken as it should be—a command to the pharmacist to put up the following ingredients of U. S. P. standard of purity and strength, and that the preparation is not in most cases a panacea but meant simply for temporary relief or to aid nature in regaining normal health.

The general education of the public has had its influence upon the profession and it should be the duty of every college of pharmacy and every true pharmacist to aid in this general uplift.

The faculty of any college today that think they have done their full duty after instructing in pharmacy, chemistry, botany, materia medica and pharmacognosy, have fallen far short of their duty to themselves as educators and their duty to the college and general public.

The curriculum of the modern college includes the subjects of pharmaceutical mathematics, physiology, bacteriology, pharmacodynamics (which includes the physiological testing of drugs and toxicology), prescription writing and dispensing, urinary analysis, business accounting, and last but not least, the science of salesmanship.

This is not all that should be expected of the college of pharmacy, for the faculty should be of aid and assistance to the people of the state; especially is this true should the college be a part of a state institution, and aid in county, district and state organization, furnish popular and scientific lectures before clubs or other organizations, and do analytical and research work in the interest of science, and help to solve the economic problems of the people.

This may seem to be putting a great and burdensome responsibility upon the colleges, but it is a responsibility the colleges should and must meet if they do their full duty.

The higher demands being made in medical education is having an influence upon colleges of pharmacy.

It is generally conceded that our national educational standard for entrance upon pharmaceutical work is too low to furnish the necessary basis upon which to build the scientific training that a really competent pharmacist should have for his work.

The colleges of pharmacy that have advanced their entrance requirements and courses beyond the mere requirements of the Conference are to be commended, for in most cases it has meant a shrinkage in attendance, at least temporarily, and in some cases pecuniary loss.

The objection, in the main, of institutions not wanting colleges of pharmacy included in the Carnegie Foundation investigation list is due to the fact that they fear the result of the report that would follow. Some of our colleges of pharmacy would be put out of existence just as some of the medical colleges were, and for the same reason.

No college of pharmacy that is not endowed or does not receive state support can honestly give the high degree of technical work that should be given, except at a loss, from tuition alone The equipment necessary and salaries that must be paid for thorough and competent instruction makes it an impossibility at the present time.

I predict that the Carnegie Foundation investigation will come whether we ask for it or not. It is to be expected that the weak schools will raise an objection, but the "fly in the ointment" is the inevitable result that is sure to follow, just as it did with the weak, poorly equipped medical schools and diploma mills of a few years ago.

The character of the instruction given in some of our colleges of pharmacy might certainly be improved. There is evidence of inbreeding by recruiting the teaching staff from the same institution.

New blood is more likely to bring new ideas and a more progressive spirit into the work. I do not at all mean that a good instructor may not be found occasionally among your own graduates, but to build up an entire faculty in this way is, to say the least, a dangerous proposition for results.

Our pharmacy colleges need live, wide-awake men of high ideals who have the ability to teach. Men who by example and precept instill higher and loftier ideals into the students with whom they came in contact, and by this association make of them better and nobler citizens and pharmacists than they otherwise would have been.

Some one has said that teaching is an interesting art, as it has so many degrees of success, but Roosevelt says that teaching that does not include efficiency, success and service, has no rightful place in education today.

Such is the responsibility of the college and its faculty, but the druggist has an equal responsibility, for the apprentice and clerk that you employ today will be the proprietor of the drug store within a few years.

How about the quality of the men that you are taking into your business? Are they clean, conscientious, capable fellows with scientific knowledge of the profession that will command respect or are they fellows who, for the most part, have been promoted from errand boys or soda clerks, with little or no high school training? These are simply questions to bring your responsibility forcibly to mind.

The enterprising and conscientious pharmacist should keep posted upon patent and proprietary remedies and free prescription fakes and tell the truth about them.

The drug journals, and there are many good ones, should have due credit for the work they are doing in general education.

The syllabus committee has been an entering wedge that has shown up weak spots in our curriculums and its value cannot be overestimated, but its best work is to follow.

The commercializing of pharmacy in some sections by the stocking of everything from canary birds to umbrellas, has caused much comment and chagrin to the ethical pharmacist. The result is hard to predict, but it would seem reasonable to suppose that the public would not expect to receive the highest class of service professionally in the drug line from a caffeteria.

Professional pharmacy is not lost because a few prefer to conduct a restaurant

The so-called detail men of the manufacturing houses are responsible in a large degree for the doctors filling their own prescriptions, and this presents an interesting educational problem for both the physician and the public. The dispensing doctors' stock should be inspected by law and required to meet the same standards as your drug stock. This would eliminate some of the difficulty.

The address of my predecessor upon legislative subjects was so thorough and well prepared that I hesitate to reopen the subject. Suffice it to say that the movement for honest advertising should receive all possible support from the pharmacist. The pharmacist is a busy man and we, as a class, have given too little attention to legislative matters. There is an old saying that if you want a drink, you should go to the head of the fountain yourself. The pharmacist has too often entrusted too much to some one else. He has sent a substitute when he should have gone himself.

It is absolutely certain that just, reasonable and sane laws for the protection of the pharmacist and public can be enacted if the members of this honorable profession will unite their efforts and create the proper public opinion. This means personal and united effort, backed by an organization modeled after such a plan as the American Medical Association.

Organization should be the slogan, and every man should stand willing to do his part in bringing to a respected and honorable profession its just dues.

I have outlined no Utopian dream. It may be charged that I have dealt in idealism, but idealism backed by push and energy, and combined with sane judgment, can accomplish things worth while. Will we measure up to the task before us?

I have but this recommendation to make: That we favor the passage of honest advertising laws and urge that colleges of pharmacy extend, within reasonable limits, their sphere of usefulness to include the great field of general education and public service.

HIT-AND-MISS MEN.

The world is jammed full of bunglers—of hit-and-miss men who use their heads for everything except thought—who confuse random ambition with capability. Wherever you turn, you can jab your elbow into some incompetent weakling proclaiming the existence of a "universal handicap"—but no sane man—no determined, industrious, thinking human ever finds the scales of Justice dishonest.—*Herbert Kaufman.*

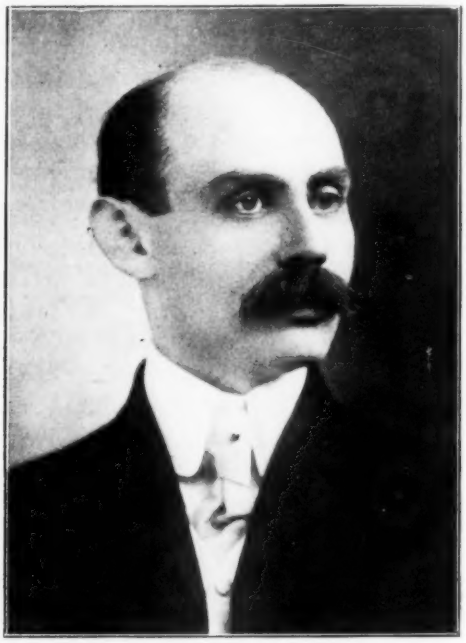
Section on Practical Pharmacy and Dispensing

Papers Presented at the Sixty-First Annual Convention

THE CHAIRMAN'S ADDRESS.

J. LEON LASCOFF, NEW YORK.

Allow me at the outset to thank you for the honor bestowed upon me in electing me chairman of this Section at the Denver meeting, although circumstances beyond my control prevented my attendance at that meeting. More especially do I appreciate this honor, since I served but a short term in the capacity of an associate, and I feel as proud as the school boy who has skipped a class.



J. LEON LASCOFF, New York City,
Chairman Section on Practical Pharmacy
and Dispensing, 1912-1913.

However, when I accepted the honor, I did not realize the enormity of the work on hand, the extreme responsibilities and the strenuous labor required to bring to a successful issue such an important event as the one we are now enjoying.

My earnest requests for papers have been generously responded to, and I cannot properly express my appreciation for the efforts of these worthy members who have contributed so liberally to the success of this occasion.

In past years, the chairmen of this Section have outlined to you the past history and prevailing conditions, and have set forth many suggestions for the future welfare of practical pharmacy. I will not attempt to appear to you in the light of a historian nor assume the role of a prophet, for who knows what destiny has in store for us? But I may add that in the last two decades close observation teaches me that American pharmacy is not going backward; but that on the contrary, it has made rapid strides in the opposite direction. My associate, Mr. Osseward, in reply to the question, "Is American pharmacy going backward?" answered that American pharmacy is not going backward in pharmacies, but in drug stores, and said, "Let us have more pharmacies and fewer drug stores."

During the life of the retail pharmacist, conducting his store for the purpose of making his livelihood, many interesting conditions present themselves from time to time, which awaken in him the desire to assist in the reform of what seems to him to be flaws in his profession. If he has the interest of his calling at heart, he makes note of the so-called errors, profits by them, writes them down and presents them to his fellow pharmacists at the meetings of the local association, or at a general conference like this, where all may share in the benefits of his experiences. For that reason do we meet annually from all parts of the United States to listen to the papers presented, enter into general discussions, and so sum up our ideas regarding the changes that must necessarily take place as civilization progresses. This is the purpose for which this Section on Practical Pharmacy and Dispensing was organized, and we are now celebrating its fifteenth anniversary.

Licensed Pharmacists Owners of Stores. There is no doubt in the mind of every one present the belief that certain radical changes must be effected if the future standard of pharmacy in general shall not be jeopardized. Especially is this true in the large cities, where we have five types of drug store owners:

1. Legitimate licensed pharmacists.
2. Corporation stores.
3. Undergraduate students of pharmacy.
4. Ordinary laymen who invest their capital for money-making.
5. Large department stores.

I need not go into detail; my hearers know only too well what the developments of the last five years have meant to us in these particulars.

In this connection, I have my first suggestion to make as to the means of safeguarding pharmacy against the continuance of what bids fair to assume enormous, and I may say, hazardous proportions. The remedy, to my mind, seems very simple, namely, that by law in every state of the Union, the owner of a pharmacy or of a store where prescriptions are compounded and poisonous drugs sold, be required to *be a registered pharmacist.* In 1912, Dr. Geo. C. Diekman read a very interesting paper on the same subject. A resolution to the same effect was adopted by the New York State Pharmaceutical Association, at the meeting held at Catskill, N. Y., June 24, 1913. It read as follows:

"No one but a licensed pharmacist shall be the owner of a pharmacy."

In small towns or villages, the legislature should eliminate the groceries or general stores from handling poisonous or deleterious drugs and chemicals.

Weights and Measures. Unfortunately, many pharmacists today are not in possession of the most necessary paraphernalia for the conduct of a first-class prescription pharmacy. It is difficult to believe, but true that, while some stores present an elegant appearance, fine fixtures and a most elaborate fountain, it will be found upon examining their prescription departments, that they do not possess the most essential weights and measures. Instead of using an ounce troy weight in the compounding of a prescription, as called for, an ordinary avoirdupois ounce is used. When metric weights are required, they convert one system into the other.

I have called the attention of the New York State Board of Pharmacy to this condition, and a regulation has been adopted to meet the situation. This ruling compels every pharmacist to have at least one *accurate* balance scale and a certain number of accurate certified weights and measures. Before any pharmacy can be registered in New York State, the proprietor must fill out a blank and swear before a notary public that he is in possession of

One (1) base scale capable of weighing one grain or less.

One (1) set of metric weights from 50 mgm. to 20 gm. A set of graduated measures, two or more in number, capable of measuring from 10 minims to 16 fluidounces. A set of glass, graduated measures, from 5 cc. to 500 cc.

One (1) set of accurate troy weights, from one grain to two drachms.

Sanitation of Pharmacy. As it is necessary to have absolutely pure drugs and clean utensils in pharmacy, so it is just as essential to have sanitation in the prescription room. Healthy, pleasant surroundings work wonders in the way of producing perfect results. The prescription room, above everything else, should be kept strictly clean and sanitary, and should have good ventilation. No sleeping accommodations should be allowed in the prescription room.

Separating the Pharmacy from the Drug Store. In the May issue of the Journal of our Association, a Canadian druggist is quoted as making the folfowing statement: "I do not cater to the prescription business. It does not pay at the prices we get and the time required to compound them. I can do more business and make more profit by keeping my clerks busy selling merchandise and my own-make goods."

I do not agree with this pharmacist. I find that prescriptions pay very well, if you take care in compounding them and gain the confidence of your patrons. If the druggist quoted does not care to bother with a prescription department, he should send his prescriptions to one who makes a specialty of this line of work, and thus be fair to his patrons and just to his profession.

In 1911, while I was chairman of the Committee on Professional Relations of our local branch, a joint meeting of the Medical Society of the County of New York, and the A. Ph. A. was held. Dr. Walter A. Bastedo presented a paper at that meeting in which it was suggested that pharmacies should be ceritfied. Dr. Jacob Diner made a motion to that effect, which was unanimously carried, and it was then decided that there be a joint committee consisting of ten physicians from the Medical Society of the County of New York, and ten pharmacists from the New York Branch of the A. Ph. A., to consider this matter. Mr. Otto Raubenheimer, in his address as chairman of this Section, at the Richmond meeting, also took up this idea and discussed it in detail.

Henry P. Utech, in his address to the Section at the Denver meeting, last year, added his endorsement of the movement, and stated that "the pharmacists of the Metropolitan City deserve our hearty approval for taking the initiative in this direction."

The joint committee above referred to was appointed, but up to the present moment nothing has been accomplished.

To justify the certification of a pharmacy as sufficiently equipped, I suggest that it should be required to possess the following essentials:

1. The owner of the pharmacy shall be a licensed pharmacist.
2. The prescription department shall be separate from the store.
3. The sale of liquors shall be absolutely prohibited.
4. Proper ventilation and sanitation shall be strictly observed.

The minimum outfit of apparatus and utensils should consist of the following:

6 mortars and pestles (porcelain).
2 glass mortars with pestles.
3 porcelain evaporating dishes.
6 spatulas of different sizes (metal).
2 horn or 1 bone spatula.
½ dozen glass rods.
1 infusion mug.
1 dozen assorted graduates (from 1 dr. up to 1 qt.).
1 dozen assorted graduates (from 50 cc. to 1000 cc.).
1 base scale (accurate) capable of weighing 1 gr. or less.
Troy and Metric weights (complete) from 1 gr. up to 12 oz., from 10 milligrams to 1000 grams.
2 separate poison closets (A and B).
2 tablet moulds (trit. and hypod.).
2 Florentine flasks.
2 sieves.
1 copper water bath.
2 percolators, funnels of different sizes, supports, etc.
1 microscope
1 sterilizer } if possible.
1 centrifuge
1 dozen test tubes.
A special closet for the most important U. S. P. reagents.
1 burette.
1 outfit for urinalysis.
2 hydrometers.
The U. S. P. and N. F. and other books of reference.

Just as a good mechanic cannot work without his necessary tools, so a pharmacist cannot do his work properly without this essential paraphernalia.

Owing to the fact that many errors are made by persons taking internally medicines intended for external use, all bottles containing dangerously poisonous substances should be dark colored, and preferably of a triangular shape, to distinguish them from the other bottles containing substances for internal use.

All present at this meeting will agree with me that any one who wants to conduct a pharmacy with an ideal prescription department, should be in possession of at least these most essential utensils.

The expense required for the proper equipment of a pharmacy for professional work is not to be considered when compared with the enormous outlay for an elaborate fountain, glass mirrors, beveled glass cigar counters, silent salesmen show cases, and other lines of fine fixtures.

I would suggest that a special certificate of the A. Ph. A., signed by its president and secretary, and endorsed by a committee of local branches, both

medical and pharmaceutical, be issued to such of its members as conduct properly equipped pharmacies, the certificate to be revokable when the pharmacist violates the pharmacy law or any of the rules of professional ethics.

I hope that the foregoing suggestions will appeal to the members present and also to those of our associates who are absent, for I believe that great things can be accomplished in the sphere of practical pharmacy if we will all put our shoulders to the wheel and help to effect the changes which have been suggested, and which will assuredly tend towards the uplift of our profession.

THE LANGUAGE OF ADVERTISING.

What is advertising? It simply consists in telling somebody about something you have for sale, with a view to getting his custom.

If you wished to tell an acquaintance about your good soda water, you would not approach him attired in a blue wig and walking on your hands. That method of approach would probably get his attention, all right, and it would probably also excite his apprehension. You would simply get hold of your friend and tell him in a few plain words about your good soda water. The points about it that appealed to you would probably be the points you would pick out with which to impress him.

You would not say: "Now this soda water of mine is the very finest beverage that the world ever knew. The nectar of ancient Olympus was slush beside it, and Cleopatra never tasted anything half so good in her life. My vanilla bean is imported at an enormous expense from Timbuctoo, and the Czar of Russia is unable to duplicate it."

No; that language would be flowery and extravagant. You probably would not use it to your friend. You would tell him instead, in your own words, that you were buying fine materials, manufacturing under sanitary conditions, and turning out a really good article of soda water. You would not tell him this in an indifferent manner. You would be earnest. And that is what a successful advertiser must always be. Now you cannot spend your life button-holing friends, nor can you button-hole strangers very well. Advertising does this for you. That is what advertising is for. It enables you to talk to a thousand men, ten thousand, an hundred thousand. You will find that the newspaper or magazine you use makes much of its circulation, that is, the number of people it enables you to talk to, and charges you accordingly.—*W. S. Adkins in National Druggist.*

Section on Pharmacopoeias and Formularies

Papers Presented at the Sixty-First Annual Convention

THE CHAIRMAN'S ADDRESS.

L. B. HAVENHILL, LAWRENCE, KAN.

At this first meeting of the permanent Section on Pharmacopoeias and Formularies, it is fitting that we review its reasons for existence, discuss its possibilities, and take a general survey of its relations to the pharmaceutical profession.

From the very first the American Pharmaceutical Association has taken an active interest in all matters pertaining to the United States Pharmacopoeia. This interest was first officially manifested by the appointment of a standing

L. D. HAVENHILL, Lawrence, Kan.,
Chairman Section on Pharmacopœias and
Formularies, 1912-1913.

committee known as the Committee on the Revision of the United States Pharmacopoeia. The name of this committee was in 1905 changed to the Committee on United States Pharmacopoeia, and its membership increased to ten.

The fact that forty-two of the fifty members of the National Revision Committee are members of this Association, serves to still further emphasize this interest and responsibility.

The increasing importance of the United States Pharmacopoeia in pharmaceutical circles has made it imperative that additional time at the annual meeting be given over to its discussions. This fact was first brought to the attention of the Association at the Boston meeting, in an article contributed by our lamented member, Dr. Oscar Oldberg, entitled, "A Few Questions Suggested by Comparisons of the National Pharmacopoeias" (Jr. A. Ph. A., 1912, Vol. I, No. 2, p. 149-150). He states "The Pharmacopoeia and its full and free recognition and use are so important to the American Pharmaceutical Association and to all pharmacists, that a special section called 'The Section on the Pharmacopœias' should at once be created. Such a section is of greater importance than any other, and we should have started it earlier." * * * He adds "The Pharmacopoeia should no longer be a side issue of some other section."

Suiting the action to the words, Dr. Oldberg, in a communication to the Council (Bul. A. Ph. A., 1911, Vol. VI, No. 1, p. 573), submitted a proposal that such a section be created. This communication was referred to a committee of three, consisting of Messrs. Clark, Kremers, and Eberle, who later recommended to the Council (Bul. A. Ph. A., 1911, Vol. VI, No. 1, p. 588), that "The Committee of the U. S. P. be authorized to hold a special session independently of the Scientific Section, or any other section, at the time of our next annual meeting. Should the experiment prove a success, the authorization for the establishment of the section may be granted at a subsequent meeting." Secretary J. H. Beal thereupon moved that "The recommendation be modified to include the Committee on National Formulary, and that the committees on the United States Pharmacopoeia and National Formulary be authorized to hold one or more joint sessions at the next annual conventon." The motion carried. Since the National Formulary is wholly due to the work of this Association, and since it has equal legal standing with the United States Pharmacopoeia, it is, if such a thing be possible, nearer to the hearts of the members of the Association than the Pharmacopoeia itself, and should be given equal consideration.

At the Denver meeting of the Association the Council (Jr. A. Ph. A., 1912, Vol. I, No. 1, p. 1104), appointed a Chairman and Secretary and the joint session of the two committees was held. (See minutes Jr. A. Ph. A., 1912, Vol. I, No. 2, p. 1220-1227). The Council passed favorably upon the work of the two committees, defined the scope of the section and appointed a Chairman and Secretary, at the same time authorizing these officers to appoint three associates for the ensuing year. Thus came into existence the Section on Pharmacopoeias and Formularies. (Jr. A. Ph. A., 1912, Vol. I, No. 10, p. 1116).

The scope of this Section as defined by the Council was as follows: "That all the work of the Association pertaining to Pharmacopoeias, National Formulary, Unofficial Standards, and to food and drug standards generally, so far as they come before this Association, be considered by this Section in the future."

The Chairman believes that it should be the work of this Section to encourage full and free discussion of the United States Pharmacopoeia and National Formulary and to endeavor to harmonize in them, in so far as it is possible, the mutual interests of the Physician, Pharmacist and Food and Drug Chemists.

The physicians may be said to regard these books as expressing their collective

ideas of the kinds and strengths of remedial agents used by them in their practice.

The pharmacists may be said to regard them as guide books for the preparation of medicines, to meet the requirements of the physicians.

The food and drug chemists may be said to regard them as works containing standard methods whereby the integrity of the pharmacist's work may be judged.

With the enactment of the Food and Drugs Laws, the Pharmacopoeia and National Formulary have become works of peculiar signifiance to a new class of scientific workers, the food and drug chemists. The great majority of these are not trained pharmacists, but are chemists, and as such they regard the U. S. P. and N. F. in quite a different light from that of either the physician or pharmacist.

It is to be hoped that the physicians and the food and drug chemists will avail themselves of the opportunities offered by this Section to come into closer contact with the pharmacists, that each may gain greater respect for the other's point of view, with the ultimate result of securing the greatest good for the greatest number.

To the end that cooperation may be assured, it is recommended that besides the Chairman and Secretary of the Section, there shall be eight associates, three active and five honorary. The three active members shall be elected annually and shall be those regularly engaged in the practice of their profession. They shall be a physician, retail pharmacist, and food and drug chemist. The five honorary associates shall be:

1. The Chairman of the National Committee of Revision of the United States Pharmacopoeia.
2. The Chairman of the Committee on National Formulary.
3. The Chairman of the Committee on Unofficial Standards.
4. The Chairman of the Committee on United States Pharmacopoeia.
5. The Chairman of the Committee on Recipes.

It shall be the duty of the active associates to report to the Association through this Section, at each annual meeting, matters pertaining to this section as voiced by the several interests represented by them.

It is further recommended that one of the regular duties of this Section be that of compiling as rapidly and completely as possible, a list of the Pharmacopœias and Formularies of the world, and of keeping the same up to date.

Contributed and Selected

STATE BOARD OF PHARMACY EXAMINATIONS.*

H. C. CHRISTENSEN, CHICAGO.

At the meeting in Denver a year ago a resolution was passed authorizing the appointment of an Advisory Committee of three to investigate the status of examinations among the various State Boards of Pharmacy, with the end in view of determining the conditions under which reciprocal registration among them could be furthered.

Mr. Charles Geitner, of the Missouri Board of Pharmacy, Mr. E. L. Brandis, of the Virginia Board, and myself, representing the Illinois Board, were honored by appointment upon this committee. I was doubly honored and greatly obligated by being chosen its chairman. Representing my fellow members, it now becomes my duty, as well as my pleasure, to report to you the results of our work.

At the risk of provoking your impatience at delay, we are moved to observe here that, in our opinion, the action of this body in adopting the Dodds resolution, looking to the establishing of general reciprocity, will mark an epoch in pharmaceutical progress in this country for the present century, not alone as a piece of legislation national in its scope, but as a basis upon which the entire profession will be elevated. For just as soon as you bring men together from different sections of a great commonwealth to discuss a common subject, to exchange ideas, to promote a common cause, just so soon will the cause in which they are interested be raised above the common level. The art of printing, ready and rapid means of travel, the telegraph and telephone—all hailed as the great promoters of civilization—were and are such only because they make the easy exchange of ideas among men possible. The struggle for a standard of qualification upon which general reciprocity may be based will serve to crystalize our ideas of what our profession should be, will modernize methods and standards long since antiquated, and will aid in putting the ancient and honorable profession of pharmacy in the front rank of the scientific professions, where it rightfully belongs. It is needless to add that the great public, by whose grace we exist, and for whose benefits our efforts should be maintained, will profit thereby.

It will do no harm to note, in passing, that this is the first of the scientific professions to take such a tangible step to abolish state lines in the legal recognition of its qualified membership.

Since its appointment, your Committee visited several of the state boards during their examination periods to observe the work of each board, study its questions, note the method of conducting its examinations and to determine as

*Report of Advisory Examination Committee National Association Boards of Pharmacy.

far as possible how much of the work of any given board might be suitable for all boards, or rather to determine what changes, if any, might be necessary to make the work of any board acceptable to the other boards on a reciprocal basis. Your Committee also studied the published questions of boards not visited. It is to be regretted that, for lack of time as well as lack of funds, only the following could be visited: Illinois, Missouri, Nebraska, North Dakota, Ohio, Virginia, West Virginia, Kansas, and Arkansas. It is to be hoped and expected, of course, that in the future work of this Committee all the states may be visited.

Now, it needs no argument to convince you that before reciprocity can be permanently or satisfactorily established, the qualifications upon which registration is based must be fairly uniform and acceptable to all the states. As in practically all the states registration is based upon examination, the attention of your Committee was directed to the subjects embraced in the examination, the character of the questions, etc. It is not the purpose of this report to either criticise or praise any state board. Each one has many commendable points and all have something to condemn.

Whatever may be the criticism or suggestions here presented, let it be understood at the very outset that no exemption is claimed by the boards represented by members of this Committee. Speaking personally for the State of Illinois, I found as a result of my visits to other boards that there were several things in our examinations that we could change to advantage.

In general, we found as regards examinations a marked lack of uniformity—a lack of uniformity that must be corrected before satisfactory reciprocity can be established. This condition we expected to find. It would be strange were it not so; hedged in as we are by state boundaries, inheriting as we do the precedents and practices of departed boards, proud and jealous as we are of our state rights, ignoring if not resenting outside suggestions, it would indeed be remarkable if uniformity were the rule. Even in the individual boards we did not always find uniformity in the character of preparing questions. Some may even have hobbies—it may be stereoisomersim in chemistry, the cultivation of leeches in pharmacy, the antidotal treatment of yohimbine in toxicology, or the treatment of "sleeping sickness" in therapeutics. But whatever it may be, the composite questions do not always make a harmonious examination. In some boards, we found an overlapping of subjects—each member apparently ignoring what the others were giving. In other boards the examinations were long and exhausting—the examiner trying, it would seem, to go over the entire subject with a fine-tooth comb, while in still others, the questions were so brief as not to admit of thoroughness.

One general criticism that can be made of nearly all examinations is an absence of proportion among the various subjects and a lack of proper distribution of the questions of each subject over that subject. To illustrate, I have seen examinations where toxicology and posology seemed to be the dominant subjects, and where the questions in chemistry would be concentrated on physiological chemistry. Toxicology, it is admitted, is an important subject, but not more so than pharmacy, and urinary analysis should not crowd out either general or organic chemistry.

Now, these criticisms are not made carpingly. We simply want to show the conditions that exist and to point out that they are incompatible with the object at which we aim. The case must be diagnosed before it can be treated. Before suggestions are permissible, it must be shown that they are necessary.

You might be led to believe from the tone of this paper that the examinations are all wrong. Not at all. We do not need to discuss the things that are right. Our laws, our religion, our entire civilization, in fact, are fabricated to correct what is wrong.

The points upon which your Committee wishes to report may be fittingly discussed under three heads. Criticisms and recommendations will be made under the appropriate head, except such general recommendations as may appear in the summary. These topics are:

(1) Subjects embraced in the examinations.

(2) Character and scope of the questions on each subject.

(3) Weight, significance or emphasis attached to each subject in its relation to the other subjects.

First, we found the following subjects covered:

Chemistry, including General, Qualitative, Quantitative, Organic, Inorganic, Physiological, and various combinations of the foregoing, under the head of Pharmaceutical Chemistry.

Materia Medica, embracing Pharmacognosy, Therapeutics, Botany, Posology and Toxicology. Sometimes the last two subjects were presented in separate papers.

Pharmacy, including both theoretical and practical.

Pharmaceutical and Chemical Problems, given in Illinois as a separate paper, but in the other States scattered throughout the other subjects.

Dispensing, both Theoretical and Practical, including Incompatibilities.

Identification and Oral:

In some States, but in none of those visited, Bacteriology and Physiology are also given.

Your Committee recommends the following as the subjects upon which examinations should be based for reciprocal registration:

(a) Chemistry, including General, Qualitative, Quantitative, Organic and Inorganic, or any combination of the foregoing, known as Pharmaceutical Chemistry, as one paper.

(b) Pharmacy, including theoretical and practical, as one paper.

(c) Materia Medica, embracing Pharmacognosy, Botany, Therapeutics, Toxicology and Posology, as one paper.

(d) Pharmaceutical and Chemical Problems, or Arithmetic, to be given as one paper or distributed throughout the various subjects. We consider this a very important subject. Whether because of a decline in the teaching of arithmetic in our public schools or whether the colleges do not or cannot teach arithmetic, we cannot say, but we know from our experience as examiners that there is a woeful lack of knowledge in this subject on the part of candidates for registration. When you consider the daily use of this subject in the drug store in calculating parts to be used in manufacturing or dispensing, in calculating doses and in the ordinary commercial transactions, you will agree that it is the duty of examining boards to see that their licentiates are properly qualified.

(e) Dispensing, both practical and theoretical. We regard this subject worthy of a separate branch. If there is any particular thing in pharmacy for which a druggist needs training it is dispensing. In fact, it is in some places the last remainng shred of professional pharmacy. If we are to license clerks to serve both employer and public as they should, how very important that we *know* from personal observation of their work that they can actually dipense as they should! Written work is not sufficient. Many a "quiz-compend" graduate can put a "crimp" in any reasonable set of written questions in dispensing, and yet that same candidate, in many instances, cannot dispense quinine capsules with as much quinine inside the capsule as he puts on the outside.

(f) Co-equal with Dispensing, we look upon the Oral Examination as the means of testing a candidate's absolute fitness for registration. Get him in front of you, run over the same range of questions as is given in the written work and see how he handles himself. Here is one place where he can't run in a "pony" on you or translate the shorthand on his cuffs. We maintain that the competent examiners can tell more from an oral quiz than from all the written work. It furnishes the greatest safeguard against the registration of incompetents.

Character and Scope of Questions. This is one of the most difficult subjects to handle, as well as the most important, for upon your questions hinges the success or failure of your examination.

What is the purpose of an examination? Obviously, to test the examinee's knowledge of any given subject or his fitness to do a given thing and an examination must do that very thing absolutely or fail in its mission. An examination should not be to shut out as many men as possible, though there are examiners, we think, who hold that view. The attitude of a board member toward the candidate should be that of a friend who desires his success, but who, as a just friend, insists on his measuring up to a certain standard, and who is happy when the candidate succeeds. The questions should not be obscure or obsolete. They should be fair, honorable questions, touching upon the most important parts of the work. Neither "snap" questions or "catch" questions should be tolerated. Questions should be written so that there will be no doubt as to their meaning and susceptible of only one interpretation. Not easy to write, you say? True, but more of that later.

We have agreed, let us assume, upon the subjects enumerated above. Your Committee, therefore, suggests the following number and distribution of obligatory questions:

(1) PHARMACY. Twenty questions. Much care must be used to properly distribute the questions. Assuming twenty questions, about ten should be allotted to the Galenical Groups, such as Waters, Solutions, Fluidextracts, Tinctures, Pills, Powders, Plasters, Suppositories, etc. Some of these questions should be allotted to the N. F. preparations—preferably to those N. F. preparations that do not find a counterpart in the official groups.

(2) Questions to non-metallic mineral preparations, such as the mineral acids, sulphur, Halogens, etc.

2 questions to the metallic salts and compounds.
2 to the Oils, both fixed and volatile, fats soaps, etc.
1 to the Animal drugs. 1 to Alcohols, aldehydes, etc.
1 to Coal Tar and synthetic preparations.
1 to the organic acids, sugars, etc.

This is of course purely suggestive, the object being to obtain an equitable distribution of the questions according to the number or importance of the compounds represented by the different groups.

It will be noted that no mention is made of the definitions that ordinarily pertain to pharmacy and pharmaceutical operations. These are omitted because they are ordinarily covered in the assistant's examinations that are given in many of the States.

The subdivision of the questions will permit, of course, a wider range than this outline indicates.

(2) CHEMISTRY. Ten questions which should be distributed about as follows: Four in general Inorganic. Two in Qualitative, two in Quantitative and two in General Organic.

(3) MATERIA MEDICA. Twenty questions, distributed as follows: Toxicology 5, Posology 5, Botany and Pharmacognosy 5 and remainder 5. These questions may be subdivided or compounded, i. e., several topics covered in one question. For instance, in asking about Belladonna, it would be quite logical to ask for the botanical characteristics, use, dose, antidote, part used, etc., in one question, it being necessary to maintain only the right proportion.

(4) PHARMACEUTICAL AND CHEMICAL PROBLEMS. Ten questions, with subdivisions, distributed as follows: Weights and Measures 1, Thermometry 1, Alligation 1, Percentage 1, Specific Gravity or Specific Volume 1, Dosage 1, Chemical Problems 2, Commercial Problems 2. It is easy, of course, to combine two or more of these in any one problem, which will then permit of a greater range and variety of questions. If these problems are not given in a separate paper they can be distributed throughout Chemistry, Pharmacy, Materia Medica and Prescriptions.

(5) PRESCRIPTIONS. Four, which should cover the usual range, such as Emulsions, Pills, Suppositories, Ointments, Solutions, Washes, Mixtures, Official Preparations, etc.

In preparing a set of prescriptions care should be exercised in the selection of ingredients which will test the ability of a candidate to properly compound. For instance, in compounding a prescription calling for capsules to be made from a mixture of sodium bicarbonate and powdered aloes, a skillful candidate will have no trouble in producing a capsule without a particle of the mixture adhering to the outside.

Furthermore, if a pill was to be made from a potent drug such as mercuric chloride, along with, we will say ammonium chloride, neither of which contain any of the properties needed to make a good pill mass, a candidate would show his ability as a good pill-maker by his choice of excipients in order to get the proper size and consistency.

Another illustration would be a prescription calling for an ointment to be made of opium, lead acetate, tannic acid, extract of belladonna and wool fat. A prescription of this kind requires more or less knowledge of the general properties of drugs as well as manipulation to compound satisfactorily. The extract of belladonna should be made into a paste with dilute alcohol, and the paste mixed with some of the wool fat. The tannic acid should be dissolved in a small amount of water and likewise mixed with another portion of the wool fat. The lead acetate should be dissolved in a few drops of water, or reduced to the finest powder, and it and the opium each separately mixed with portions of the wool fat. The four separate ointments should then be combined to form one smooth homogenous ointment containing all the ingredients. The finished product should be a perfectly smooth, greenish-brown ointment, free from lumps or grit.

(6) ORAL. No number of questions can be assigned here, because cases will vary. The examiner should have a good range of questions (they may be conveniently written out on cards), or otherwise he will soon find himself running in a "rut."

Relative to the subdivision of questions, care should be taken lest so many divisions be made that the candidate will be burdened beyond reason. Your committee has seen questions where there were ten subdivisions, making a total of one hundred distinct answers necessary on a paper of ten questions. By carefully wording the questions the same information of the candidate's knowledge could be elicited by having not more than two subdivisions. In general, we think, two subdivisions of any question is ample.

We do not require the marathon runner to cover his twenty-five mile course twice to prove he is a qualified sprinter. Then why give a candidate "writer's cramp" by making him tell us that Couch Grass, Dog Grass, Goose Grass, Knot Grass, Quick Grass and Quitch Grass are all our old friend Triticum Repens?

As to the character of the individual questions, that will depend wholly upon the examiner coining them. And right here is the meat in the nut. Upon the character of the individual questions rests, mainly, the quality of your examination. Any scheme or recommendation of your committee is of no avail so far as the *quality* of the question is concerned. Any distribution of questions will avail but little unless the questions are right. To use an old phrase, more expressive than elegant, perhaps, "You cannot make a whistle out of a pig's tail." An examiner can or cannot write proper questions. Much like the ability to write poetry, we believe, proper question writing is more inherited than acquired. No rule will help much.

Relative Weight or Significance of Various Subjects. We have already referred to the lack of proportion among the various subjects found in different examinations. It is unfair, of course, to give a relative minor subject dominant importance in an examination, but such sometimes proves to be the case. It comes about in this way: One examiner on the board may be given a minor subject, but consider it of major importance. The man having the major subject may be indifferent as to the importance of his subject, or may be incapable of preparing a superior set of questions. He may be weak in that subject. The result will be an examination without proportion, strong where it should be weak and weak where it should be strong.

Your committee recommends the following as the order of importance of the subjects of examination: Pharmacy; Materia Medica, embracing Toxicology, Posology and Botany; Chemistry; Dispensing; oral Pharmaceutical and

Chemical Problems. Cognizance is given to the relative importance of subjects in an examination by nearly all civil service bodies, where different subjects are given different weights to total a hundred. In the Federal Civil Service examinations in Pharmacy, for instance, the order runs about as follows: Pharmacy 40 units; Chemistry 20 units, Materia Medica 15 units; making a total of 75 units. The remaining 25 units being composed of Spelling, Arithmetic, Penmanship, Letterwriting and Bookkeeping, each 5 points.

We do not know that it is either practicable or advisable at this time to attempt a numerical proportioning of the various subjects. We are inclined to think not. In a state board examination, it is not always satisfactory to have one examiner giving a paper carrying a much greater numerical weight than another examiner. It might lead to internal complications. Precisely the same results can be obtained by proportioning the hardness or difficulty of the questions. If Pharmacy is the most important, make the questions in this branch the hardest. If Arithmetic is the least important, let the question on this subject be relatively easy. In the State of Illinois (which, by the way, I am not putting forth as a paragon of perfection), we have made it a practice to exchange our tentative questions. Each member goes over the questions of the other members, pointing out possible errors, improvements, and changes. In this way, each member of the board can see where his questions duplicate or encroach upon the questions of another member. When the author of any particular set of questions has his set returned to him, with the criticisms and comments of all the other members of the board, he is then in a position to prepare a much better set. These criticisms are not always favorable, but each member understands the spirit in which they are made and the results have been very satisfactory.

General Character of Questions. There is another point that has not been referred to, which may be pertinently considered at this place. It is the relation between the board of pharmacy questions and the accepted courses in pharmacy covered by the standard schools or colleges of pharmacy. We realize that we are treading on thin ice when we open this subject, but we think it our duty to consider it. A student of board questions and college curricula is not very greatly impressed by any intimate relations between the two. He is still less convinced of an intimate relation if he gets outspoken board members and college professors to express their opinions of each other's work. We are not here to argue either side of this question. Both are partly right and both partly wrong. One thing we are convinced of, however, and we think you will agree with us, is that there is not the intimate relation between the board questions and the college courses there should be. The record of college graduates before the various boards of pharmacy proves this conclusively. We are not blaming either side. We only say that it is bad for both. We consider it a very bad thing for the colleges to have their graduates fail in board of pharmacy examinations. It is likewise a bad thing for boards of pharmacy, representing the public and protecting its welfare, to have what should be the cream of the profession, the college graduates, fail in examinations.

In but few states is graduation from a recognized college or school of pharmacy a prerequisite for registration. A bill to this effect recently failed in the State of Illinois. It will be a long time before all the states have such a law.

Certainly it will not be in our generation. Yet all the states have examining boards that attempt to sort out the fit from the unfit. Whether you believe in compulsory graduation is not the question. You will admit, we believe, that the same man with a college education will make a better public servant than without it. But what inducement is there, we ask, for a young man to take a college course of pharmacy if failure before his state board is as probable as improbable? We hold that this condition is unfair to the young man or woman who asires to enter our profession. We want to go on record here as being on the side of the clerk of today and the proprietor of tomorrow. Is it fair to a young man to compel him, as is done in some states, to get his degree and then require him to pass an examination for which his course has not fitted him? Is it any inducement to a young man to fit himself with a college course when he knows that he has no more chance of passing a board of pharmacy examination than the "quiz-compend alumnus?" We submit that this is a condition that requires remedying.

Suggestions. Your committee believes that such changes as are necessary to bring about a more uniform standard of examinations can be made without any radical departure on the part of any state board. There may be some instances in which the laws of a state prohibit such changes or render them difficult, but we are firmly of the opinion that once it be shown to any legislature that the status of pharmacy in its state will be raised by such change, prohibitory laws will be repealed or laws permitting reciprocity be enacted. Your committee is thoroughly convinced that once reciprocity becomes established that the standard of the profession will be automatically elevated.

As a means of bringing about uniformity in examinations, we suggest that it might be well for the members of this Advisory Committee, whomever they may be, to be clothed with authority to prepare one hundred examination questions in each of the branches herein recommended. These questions could be printed, with proper keys, and furnished to any board of pharmacy desiring them. From these one hundred questions board members could select the requisite number in each branch. Your committee does not want to interfere with the examinations of any board of pharmacy, and hopes you will not construe this suggestion as meddling in any way, shape or form. Such action would be purely advisory and no board of pharmacy would be obliged to select its examination questions from these printed lists. We venture the statement that there is not a member of any board of pharmacy at this meeting who, when pressed for time, would not welcome an entire set of questions, with key, that he knew were academically sound.

Again, it may not be out of place, or assuming to dictate, to suggest that examining boards desiring to do so might send contemplated questions to the Advisory Committee for criticism in the proper spirit and helpful suggestions.

We are taking the liberty of referring to a few examination questions, selected at random, and which were apparently not properly censored.

In a set of Chemistry questions we find the formula for Magnesium Hydrate given as Mg(OH); Strontium Bromide spelled *Strontum,* and Glucoside spelled *Glucocide.* The same paper asks for the reaction between two molecules of Sulphuric Acid and an Atom of Metallic Calcium. Since when did the

action of acids on the metal calcium become of pharmaceutical importance? At the top of the same paper, the candidate was cautioned that correct spelling would be considered in the rating.

In another set, the examinees were asked in one question to tell from what and *how* the following were obtained: Acetone, Cellulose, Amylum, Glucose, Eucalyptol, Terpin Hydrate (spelled Terpen), Benzoic Acid, Pyrogallic Acid, Cacao Butter and Milk Sugar. I wonder if the examiner realized just how much writing it would entail to tell *how* these were obtained—granting that the candidate knew. Truly, a Marathon answer. In that same paper Iodum was spelled Iodium—a curious combination of the Latin and English spelling; Creosote was spelled Creasote, and Hydrocyanic was spelled Hydriocyanic, while at the top of the page the candidate was instructed to "writ" on one side of the leaf.

These mistakes are not as serious, perhaps, as asking for the "alkaloids" of digitalis, or from what plant the "alkaloid" salacin was obtained, but many a bright student must have had a quiet laugh after the examination over these typographical errors. If we demand accuracy in the answers of our candidates we should at least set the example in our questions. Such mistakes, if excusable, are hardly necessary. If these questions had been revised by other board members or by an Advisory Committee, the errors would have been detected before the papers were printed and the board member who prepared them would have been spared humiliation.

Conclusion.—In concluding our report, perhaps we should apologize for the small amount really accomplished. However, you cannot change in one day or one year what has been established for a quarter or half a century. It would not be advisable to do so even if you could. We feel that a start has been made and made in the right direction. Interfering laws, customs, precedents and prejudices will give way when the truth is pointed out. We are standing on the threshold of an epoch-making period. We are living in an age of rapid progress. Social, business and polictical evolution, if not revolution, is going on about us. The forces of man are being wielded as never before to help his fellow man. Never in the world's history have the resources of medical science been used as they are today to prevent disease and remove its causes. Yellow fever has been stamped out, smallpox no longer terrorizes, and the great white plague must soon yield its intrenched ground. To further this great liberation of the human race from disease and suffering, new men as well as new means are being created. Shall we stand idly by and let others shoulder the burden? Or shall we take our place on the firing line—where we rightfully belong—with those who are fighting the great battle of the race and aid in the cause by producing better pharmacists by means already pointed out as feasible?

We ask you to join us in giving better examinations which will produce us better men. As an inducement and a reward to pharmacists—be they clerks or proprietors—who attain the new standard, let us wipe out the artificial barriers that prevent the free flow of qualified men from one state to another. Surely the day of provincial prejudice has passed. We meet here as a national body having common aims, ambitions and aspirations. Let us express our confidence in each other by our willingness to recognize those whom the others have licensed.

Assuredly, the man who can serve as a pharmacist the people of Missouri, can equally well serve those of Indiana, Colorado or Illinois.

We, as individuals, are transient, but the cause and the public we represent are permanent. We are here today and replaced tomorrow. But let us, in our allotted time, at least, keep the cause moving. In order that there may be no mistakes and no regrets, let us adopt a uniform standard of examinations. Make it as high as the majority wills. Let it be such that it *can* and *will* be recognized from Arizona to Alabama, from Minnesota to Maine. Leave it not to those who follow us to say, "They halted when they should have marched. They saw their duty and they heeded not."

H. C. CHRISTENSEN, Chairman,
E. L. BRANDIS,
CHARLES GIETNER,
Committee.

THE MICROSCOPIC EXAMINATION OF OINTMENTS.*

FRITZ HEIDELBERG AND CHAS. E. VANDERKLEED.

The value of an ointment depends upon many factors, including such things as amount of active ingredient present, absorbability of the vehicle, etc., but not the least important of these factors is the degree or fineness of subdivision of the active ingredient in the vehicle, generally, though erroneously, called the base. No doubt, the finer this subdivision, the better the ointment will be, the more quickly will it be absorbed, and we have as the ultimate limit of fineness of subdivision those preparations in which the active principle is in actual molecular solution, when on the one hand it is soluble in the vehicle, and those in which the active principle is in colloidal solution or suspension, when on the other hand it is insoluble in the vehicle. Only a small proportion of the ointments, official and unofficial in present day use, however, approach these ideal conditions.

Every maker of an ointment, therefore, should endeavor to subdivide his active ingredients as finely and as evenly as possible throughout the mass, and he should therefore have a means of determining when he has reached the desired limit, or when he can conscientiously consider his ointment fine and even enough to insure satisfactory results. Chemical analysis will of course not suffice, for the active ingredient may be present in ample and correct proportion and yet be present in such a rough suspension, as to be useless or even dangerous, as for example, in the case of an improperly prepared yellow oxide of mercury ointment for eye medication.

The only satisfactory method for determining whether or not the proper degree of subdivision has been secured is by means of the microscope. The U. S. P. requires that mercurial ointment shall be rubbed until the individual globules of mercury are no longer visible under a lens magnifying ten diameters. But if still better and more nearly uniform results are desired, and who shall

*Read before the Pennsylvania Pharmaceutical Association, June, 1913.

say that what we have is good enough, that there shall not be further progress, the microscope must be used. In the course of many years' use of the microscope in the examination of hundreds of samples of ointments, the writers thought it might prove of interest to point out some of the precautions that must be observed even in so apparently simple a task as this. It is quite easy to obtain erroneous results if the conditions under which the samples are taken and under which the observations and comparisons are made, are not watched very carefully. The part of the work to which we wish to call particular attention is the preparation of the slide, which we shall illustrate with micro-photographs of mercury ointments.

The method usually employed, and which naturally suggests itself to the operator, is simply to spread a layer of the ointment on a slide, thinning it out to the necessary degree by rubbing the finger, or another slide, over its surface in

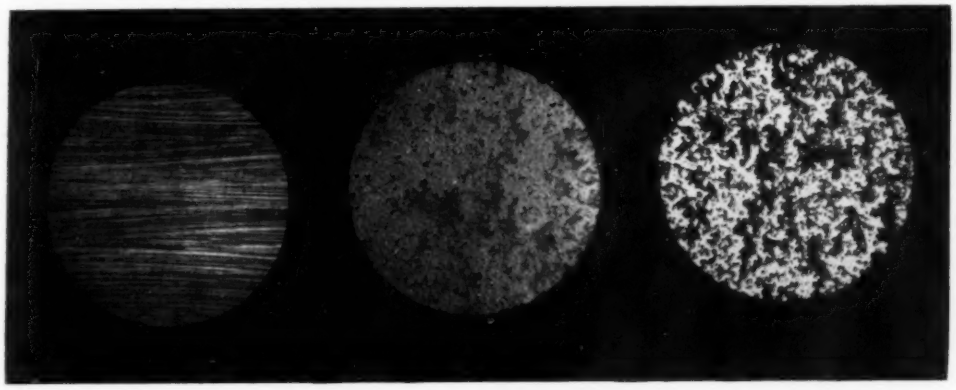


FIGURE No. 1.
Blue Ointment magnified 100 diameters, showing ordinary method of preparing slide.

FIGURE No. 2.
Same Ointment magnified 100 diameters, showing improved method of preparing slide.

FIGURE No. 3.
Same slide as No. 2, showing effect of too much light.

the manner employed in making a blood smear. Unfortunately, the appearance of the globules, in the case of mercury ointments, will depend largely upon the pressure which is exerted in running the finger or slide over the specimen. Sometimes the larger globules are rubbed up finer by this method and oftentimes the large globules are pushed to one side, leaving only the smaller globules to appear in the field of vision, and in either case causing the ointment to appear better than it really is. On the other hand, the pressure sometimes causes a number of the smaller globules to unite to form larger ones, while if not enough pressure be used, a slide insufficiently transparent to permit of good judgment of the ointment results. Moreover, different fields on the same slide prepared in this manner differ considerably in the average size of their particles. Figure No. 1 is typical of the appearance of a slide prepared in the above manner.

In striking contrast is Figure No. 2, which is a micro-photograph of a specimen of the same ointment shown in Figure No. 1, magnified to the same extent (about 100 diameters), but prepared by the following method which we have found, after long experience, to give the most satisfactory and uniform results.

We take a small amount of the ointment—the amount which is held in a small platinum wire loop is sufficient—and place it on the center of a slide. The latter is then gently heated on the water bath until the specimen of ointment is just melted. A cover glass is now gently dropped on the softened ointment on the slide, when, owing to capillary attraction, the ointment will spread itself between the glass and the slide in a very thin film in such a way as to have formed in the center of the disc an area which tends to retain the heaviest globules, while the finer particles will sometimes follow the capillary movement of the melted vehicle toward the circumference. The heavier particles therefore, if they still be contained in the ointment, in this way remain concentrated, and the judgment of the ointment is very easy, since the central area should show particles rather uniform in size, and but few, if any of them, should be very large in comparison with the average.

The question naturally suggests itself as to how we can be sure that the particles in such a slide have not to a certain extent coalesced during the softening

FIGURE No. 4.

Blue Ointment on market, magnified 100 diameters.

FIGURE No. 5.

Another Blue Ointment on market, magnified 100 diameters.

FIGURE No. 6.

Another Commercial Blue Ointment, magnified 100 diameters.

of the ointment. We are sure that coalescence does not occur, because we have observed the melting down of the ointment under the miscroscope, and have also prepared slides repeatedly from the same ointment with varying conditions as to time and temperature of the melting, and have in this way assured ourselves, that if the above directions are followed, no coalescence of particles occurs and concordant results will be obtained. The same method is used for preparing slides from other kinds of ointments.

The best size of enlargement in our opinion is obtained by a magnification of about 100 diameters, as obtained by using a ⅔ Baush & Lomb objective, and No. 1 ocular with a tube length of 160 mm. The light should be regulated in such a way that the mercury particles appear as silvery globules on a dark background. This can be easily done by using partly the mirror of the microscope and partly the hand to cut off some of the light. Under these conditions the mercury globules will have the metallic appearance and luster as mercury ordinarily has

in transfused light, and in this form it is much easier to differentiate between the smaller and larger particles, as well as to distinguish a mercury globule from a casual air bubble. If the mirror be used so that the full amount of light enters the field, the contrast between the dark mercury and the light background is so

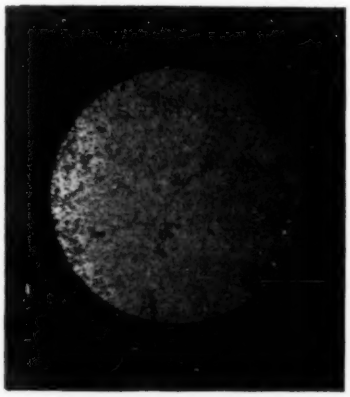


FIGURE No. 7.
Blue Ointment (X100) after 5 hours' grinding.

FIGURE No. 8.
Blue Ointment (X100) after 8 hours' grinding.

great that it is difficult to see the individual particles. (See Figure No. 3, which is a photograph of the same field shown in Figure No. 2, but differing in the amount of light admitted in taking the picture.)

As for the standards to be adopted, these are of course arbitrary. It would be difficult to fix a standard for the average size of the particles, as a few very

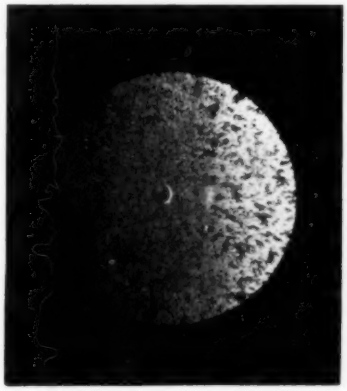


FIGURE No. 9.
Blue Ointment (X100) after 21 hours' grinding.

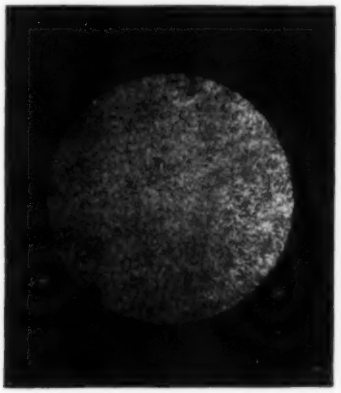


FIGURE No. 10.
Blue Ointment (X100) after 37 hours' grinding.

large particles might contain more material than hundreds of other particles taken together. The best plan to adopt is to take a certain specimen as a satisfactory example and make comparisons of new lots with the sample taken as a standard.

As proof that some attention should be paid to the fineness and uniformity of mercury ointments on the markets, Figures 4, 5 and 6 are shown. These figures represent three samples of Blue Ointment, made by manufacturing pharmacists, as found on the market, magnified about 100 diameters. The question may be raised as to why it should be necessary to reduce the mercury to so fine a state of subdivision. We have observed that if the particles are not very finely subdivided, they will easily coalesce to form larger globules when rubbed into the skin, and thus a part of the material is wasted. We have found, however, that after the particles have become quite finely subdivided, they do not reunite, but are ground still finer on rubbing.

To control the amount of grinding necessary to produce a uniform ointment, the following experiment was made. A lot of Blue Ointment was rubbed up

FIGURE NO. 11.
Ultra-Micro-photograph (X1000) of same Blue Ointment shown in Figure No. 10.

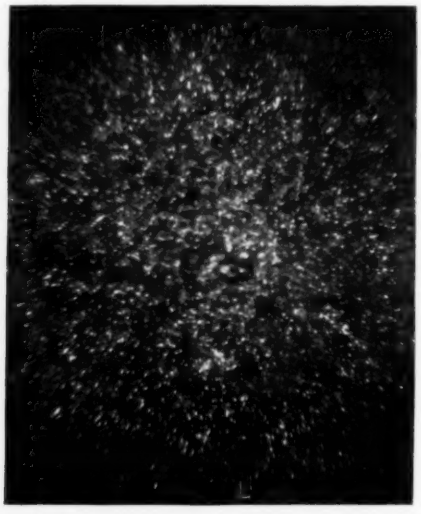


FIGURE NO. 12.
Ultra-Micro-photograph (X1000) of Colloidal Mercury Ointment, 10%.

in a ball mill for 37 hours and samples were taken out for examination at intervals during this time. Figures No. 7, 8, 9 and 10, show the condition of this ointment after 5, 8, 21 and 37 hours, respectively. It will be noticed that by using the above described method of preparing slides, it is very easy to observe the gradual diminution of the size of the globules.

Special attention is called to Figure No. 9, in which a large air bubble, being perfectly transparent, may be very readily distinguished from the mercury globules. Figure No. 10 shows the great uniformity in appearance of the particles under a magnification of 100 diameters after 37 hours' grinding, at which stage it was considered finished.

That the apparent uniformity of the ointment is only relative to the degree of magnification, however, can be seen by still further magnifying the same slide to about 1000 diameters. Figure No. 11 was made from the same slide as was

Figure No. 4, but by the aid of the ultra-microscope, using dark field illumination. That the particles are after all, not actually uniformly subdivided is apparent at a glance.

As suggested in the opening paragraphs of this paper, the only way to obtain the ultimate and highest degree of uniformity combined with the finest subdivision, in the case of a substance like mercury, insoluble in the vehicle, would be to prepare it in colloidal form. This we have succeeded in doing, and we are now engaged in collecting clinical data as to whether these colloidal ointments and oil suspensions possess therapeutic advantages over the ordinary metallic ointments and over the Grey Oil used for intramuscular injection. Figures No. 12, 13, 14 and 15, show ultra-micro-photographs of colloidal mercurial ointment. The individual particles, though theoretically magnified only about 1000 diameters, are actually many times smaller than this, due to the fact that to the observer

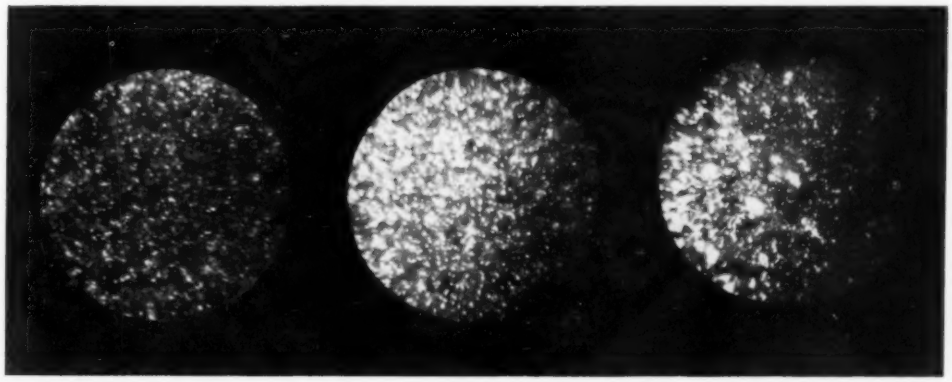


FIGURE No. 13.
Ultra - Micro-photograph (X1000) of Colloidal Mercury Ointment with lowest possible illumination.

FIGURE No. 14.
Same as No. 13, but with increased illumination.

FIGURE No. 15.
Same as Nos. 13 and 14, but with more intense illumination.

the particles themselves are luminous and sources of light. Consequently, the brighter the illumination (a high power arc light is required) the larger the particles will appear. This is well shown in Figures No. 13, 14 and 15, which represent the same ointment with gradually increasing intensity of illumination. It is of interest to note how the particles appear to coalesce into kinds of luminous nebulae with increase in luminosity, while if the latter be decreased, the individual character of the particles again becomes discernible. Moreover, no adequate conception of the actual size of the particles can be had because they are in indescribably rapid motion similar in appearance to the so-called Brownian movement of floating dust particles. Thus each bright spot, as shown particularly well in Figure No. 12, represents not the size of one colloidal particle magnified 1000 times, but rather the entire circumference of the glow of a particle rapidly vibrating throughout a space many times its own actual dimensions.

RESEARCH LABORATORY OF H. K. MULFORD COMPANY, June 20, 1913.

DEODORIZED TINCTURE OF OPIUM.*

JOSEPH W. ENGLAND, PH. M., PHILADELPHIA.

The official Deodorized Tincture of Opium is a solution of the water-soluble proximate principles of opium made from granulated opium and water, concentrated by evaporation on a water bath, washed with purified petroleum benzin and preserved with alcohol. The process eliminates resin, caoutchouc, ligneous matter, odorous principles, etc. The preparation is analogous to the old McMunn's Elixir of Opium.

The objection to the official method of making Deodorized Tincture of Opium is that it is tedious to carry out and the product, unless very carefully made, is apt to have a benzin odor.

Various improvements in the official formula, including the paraffin method, have been suggested, but the simplest and best procedure, in the judgment of the writer, is to make the preparation directly from deodorized opium, as advocated by the late Professor John M. Maisch (King's American Dispensatory, 1900, p. 1978). This has been done in the laboratory of Smith, Kline and French Co., for a number of years and with entire satisfaction.

The following method is recommended:

Deodorized Opium (containing 12 to 12.5 percent of crystallizable morphine)....	100 gms.
Alcohol	200 cc.
Water, a sufficient quantity	
To make.....	1000 cc.

To one thousand cubic centimeters of *cool* water, in an evaporating dish, gradually add the Deodorized Opium, mix and heat on a water bath for six hours, replacing water lost by evaporation. When cool, pour the mixture, as evenly as possible, upon a wetted, non-fluted paper filter in a funnel, returning the first portion of the filtrate until it runs clear. Then percolate the residue on the filter with water until the percolate passes colorless and is only faintly bitter. Concentrate the percolates on a water bath, until they measure seven hundred cubic centimeters, cool, add two hundred cubic centimeters of alcohol, and filter through a paper filter.

Assay the final product by the process given under Tinctura Opii of the U. S. Pharmacopœia and adjust the volume of preparation, by the addition of water, so that each one hundred cubic centimeters shall yield not less than 1.2 nor more than 1.25 gms. of crystallized morphine.

By making the final volume nine hundred cubic centimeters, and assaying, the product can be most readily standardized.

In the making of Deodorized Tincture of Opium from deodorized opium, *boiling* water has been used, but, in the writer's opinion, the use of *cool* water, and heating on a water bath, is preferable.

* Presented to New Jersey Pharmaceutical Association, June, 1913.

MAGMA MAGNESIAE.*

GEORGE M. BERINGER, PH. M., P. D., CAMDEN, N. J.

The National Formulary directs that Magnesia Magma, commonly called Milk of Magnesia, be made by pouring a filtered solution of 81 Gm. of Sodium Hydroxide in 4000 Cc. of Water into a filtered solution of 250 Gm. of Magnesium Sulphate in 4000 Cc. of Water. The precipitate is washed by decantation, then drained and mixed with sufficient water to make the product measure 1000 Cc.

This looks like an exceedingly simple formula that should yield a satisfactory preparation. However, in my experience, it has not proven so, and several modifications are necessary and are included in the improved formula now presented.

The author of the N. F. formula aimed to obtain a very fine precipitate by using very dilute solutions and precipitating at room temperature. He succeeded in doing this, but the precipitate is so light and commonly so bulky that it is with difficulty that it can be reduced to a volume of 1000 Cc. and remain sufficiently fluid to pour. The resulting magma usually resembles thick starch paste.

An examination of the wash water shows that the Magnesium is not all precipitated. This is readily understood when the formula is critically examined. The quantity of Sodium Hydroxide directed, 81 Gm., is shown by calculation to be the theoretical amount of pure anhydrous Sodium Hydroxide that would be required to react with 250 Gm. of Magnesium Sulphate, U. S. P., but as Sodium Hydroxide, U. S. P., contains about 90 percent pure NaHO, it is self-evident that the formula directs an insufficient amount.

The chemist has been taught the difficulty of completely precipitating Magnesium Hydroxide in the presence of alkaline chlorides or sulphates and that an excess of the solution of potassa or solution of soda is necessary and that "the separation of this precipitate is greatly promoted by boiling the mixture." The present N. F. formula has insufficient alkali instead of an excess, and, moreover, commits a manipulative error in directing that the Sodium Hydroxide solution be poured into the solution Magnesium Sulphate so that at no time is an excess of alkali present. The use of hot solutions instead of cold should also be directed.

To correct these defects, the following improved formula is presented:

MAGMA MAGNESIAE.

Magnesia Magma.	Milk of Magnesia.
Magnesium Sulphate	250 Gm.
Sodium Hydroxide	100 Gm.
Water, a sufficient quantity.	

Dissolve the Sodium Hydroxide in 1000 Cc. of Water and the Magnesium Sulphate in another portion of 1000 Cc. of Water and filter the solutions. Heat the solutions to boiling and add the Magnesium Sulphate solution to the solution of Sodium Hydroxide with constant stirring. Boil the mixture for fifteen minutes, then remove from the fire and wash several times by decantation and then on a close muslin strainer until the washings are free from saline taste and

* Read before the New Jersey Pharm. Assn., June 11, 1913.

give not more than a slight turbidity with Barium Chloride T. S. Allow the magma to drain, then transfer to a suitable vessel and add sufficient water to make 1000 Cc. and mix thoroughly.

In order to obtain a nice white and smooth preparation, one must be careful of the character of the water used. If distilled water is produced in abundance and at a minimum cost, it can be used to advantage. The cost of distilled water to the average pharmacist, however, would preclude its use for the washing of this preparation. Satisfactory water can be cheaply and readily obtained by adding 5 Gm. of powdered Magnesium Carbonate to each litre, boiling and then filtering.

ELIXIR FERRI, QUININAE ET STRYCHNINAE PHOSPHATUM.*

GEORGE M. BERINGER, PH. M., P. D., CAMDEN, N. J.

The formula for the Elixir of the Phosphates of Iron, Quinine and Strychnine, U. S. P. VIII, has been criticised largely because of the uncertainty of the color in different lots and the rapid changes that take place in the color and flavoring on keeping. Recently, another question has been raised, namely, if Quinine in solution with Acetic Acid is not partly changed to Quinotoxin. Consequently, it seems desirable to adopt in the revision a different formula.

The pharmaceutical journals have presented a number of proposed formulas and it has fallen to my lot to try many of these. Without going into a detailed account of the experiments or criticism of these formulas, I will submit the improved formula which I have recommended:

ELIXIR FERRI, QUININAE ET STRYCHNINAE PHOSPHATUM.

Elixir of the Phosphates of Iron, Quinine and Strychnine.

Soluble Ferric Phosphate	17.5	Gm.
Potassium Citrate	5	Gm.
Quinine	8.75	Gm.
Strychnine	0.275	Gm.
Phosphoric Acid	2	Cc.
Alcohol	200	Cc.
Glycerin	200	Cc.
Compound Spirit of Orange	10	Cc.
Purified Talc	30	Gm.
Distilled Water, a sufficient quantity		
To make	1000	Cc.

Dissolve the Quinine and the Strychnine in the Alcohol and 100 Cc. of Distilled Water to which has been added the Prosphoric Acid. Add to this the Compound Spirit of Orange. Dissolve the Soluble Ferric Phosphate and the Potassium Citrate in 100 Cc. of warm Distilled Water. To this solution add the Glycerin and then the alkaloidal solution and sufficient Distilled Water to make the product measure 1000 Cc. Mix the Purified Talc intimately with the liquid and then filter, returning the first portion of the filtrate until a transparent

*Read before the New Jersey Pharm. Assn., June 11, 1913.

liquid is obtained. Lastly, wash the filter with a mixture of 1 volume of Alcohol and 4 volumes of Water until the filtered product measures 1000 Cc.

In this formula the proportion of the medicinal ingredients is retained the same as in the present official formula, as it was not deemed desirable to make any change in the accepted strength or dosage. The use of glycerin as the sweetening ingredient in place of sugar has proven very satisfactory in elixirs containing iron salts and corrects the tendency of such elixirs to change color. The green tint of the product as at first prepared appears to undergo no marked change after keeping for a year or more. Instead of using Aromatic Elixir as a diluent, the elixir is made in the process of the manipulation, the Compound Spirit of Orange being added, thus insuring the greatest amount of flavoring possible. The manipulation is an important factor in obtaining a satisfactory product and a reversal of the directions as to mixing will promptly demonstrate this.

A RAPID METHOD FOR THE QUANTITATIVE ANALYSIS OF ZINC OINTMENT.*

JOSEPH L. MAYER, PH. G., PHARM. D., NEW YORK CITY.

In testing some samples of Zinc Oxide Ointment recently, it appeared to me that the analytical methods now in use were too involved and time consuming for the pharmacist: I therefore devised the following very simple and accurate process:

Into a tared porcelain crucible, accurately weigh 1 gram of the sample, heat cautiously until the material bursts into flame, allow to burn quietly until all inflammable material is consumed, then heat strongly with the Bunsen burner until all organic matter is burned off, cool and weigh.

Should difficulty be experienced in burning off organic matter, moisten with a drop of nitric acid, heat cautiously to avoid spattering, and then with the full flame as before.

Since 1 gram of the sample is taken the residue, which is oxide of zinc, can easily be computed into percentage by multiplying the result by 100.

Of course, if necessary this result can be checked by determining the zinc in the residue volumetrically, gravimetrically or electrolytically, and calculating to oxide.

There does not appear to be any reason why the method cannot be employed with equally good results for the analysis of zinc stearate ointment. In this case the amount of stearate present could easily be calculated from the residue of zinc oxide.

The method, in addition to being rapid, is accurate and easily applied.

---

*Read before the New York State Pharmaceutical Association, June, 1913.

CHEMISTRY AND PRACTICAL JOKES.*

CHARLES H. LAWALL, PH. M., PHILADELPHIA.

Practical joking is jesting carried into action and is usually looked upon as a low and reprehensible form of humor. Sometimes, indeed quite frequently, and especially about the Fourth of July, when explosives are available, serious results are reported from such attempts to be funny, as placing a lighted cannon cracker under the chair of an unsuspecting person or shooting a blank cartridge toward a person.

Such forms of practical jokes as require no particular apparatus or material but occur spontaneously, are bad enough, but within the past few years there have been attempts, particularly by German manufacturers, to stimulate and develop the practical joking industry by supplying materials for carrying out such annoying practices as the production of a disagreeable odor or the setting of a large room full of people to sneezing.

The manufactured devices for producing a foul odor are in the form of capsules or containers of thin glass, easily crushed under the foot and containing a solution of hydrogen sulphide, which in these sealed glass containers, seems to keep indefinitely. Several sizes of these "stink bohnen" or "foul bombs," as they are labeled, are sold in small chip boxes filled with sawdust to prevent breakage of the bombs.

Practical joking must certainly be an international custom, for one package which I purchased for the purpose of investigation of the subject had a label printed in three different languages, French, German and English. These foul bombs, when broken, produce the characteristic rotten egg odor of hydrogen sulphide, which, however, soon disappears and doubtless no great amount of harm can result apart from the annoyance.

It is a different matter, however, in the case of the sneeze powders, as they are called, which are sold in tiny vials, labeled "Kachew Powder," each containing about 10 grains of a gray powder which I found to be one of the most acrid and irritating substances known to chemistry. Contrary to the usual supposition, red pepper, hellebore, bayberry, sanguinaria, tobacco or other common sternutatories, are not present in this material, which I have recently investigated and found to consist almost entirely of acridine, probably a crude form of the substance.

Acridine, $C_{13}H_9N$, is a basic substance obtained as a fraction of coal tar, associated with crude anthracene. Its name is indicative of its properties. It is a powerful sternutatory and skin irritant. The only legitimate use to which it has ever been put is as an insecticide and also in compositions for coating the bottoms of vessels to preserve them. It is said by some authorities that the preservative properties of some coal tar products are due to the presence of small amounts of acridine.

The use of such a powerful substance as this by malicious or unthinking persons should be suppressed. Indeed, I believe its sale could be restricted if not entirely prevented by a proper enforcement of the poison laws, as it is certainly a poison within the legal meaning of that term.

*Presented to Pennsylvania Pharmaceutical Association, June, 1913.

THE APPLICATION OF TINCTURE OF IODINE IN SURGERY AND ITS EXPLOITATION BY PHARMACISTS.*

FREDERIC E. NIECE, PHAR. D., NEW YORK CITY.

Of all the tinctures given a place in the armamentarium of the present-day surgeon, that of iodine holds perhaps the highest position in the esteem of the successful operator. During the past few years, several experimenters have used iodine in some fluid form or other with a view of ascertaining if possible, its disinfecting and antiseptic properties. The success that has crowned their efforts along these lines has established the fact that tincture of iodine is a valuable and indispensable adjunct to the surgical ward. These gratifying results have been the means of creating a sphere of prominence for iodine heretofore unequaled by any other tincture of a similar nature. The extensive datum now at our command, as it pertains to actual results in the field of operative surgery, places iodine as the one tincture par excellence. The variety of uses to which it has been applied with beneficial results, as reports seem to show, has gained for it a standing that perhaps very few of the other elements will ever reach. As a galenical long known to us all, but whose virtues seem to have been so little regarded, it has in a wide measure, made for itself, a new province of usefulness and efficiency in medicine, and as we shall endeavor to elucidate, an equally as good means for deriving a profit to the pharmacist.

In a vague manner, we have known iodine to be possessed of peculiar properties, for some time past, but as to what they were, absolute facts to base our opinions upon, up to a few years ago were lacking. Iodine dissolved in alcohol and called "Tincture of Iodine" has not only been of service to our various Boards of Pharmacy, but it has also been accepted by the laity as a useful servant in eradicating many of the light ailments flesh is heir to. In short it has been largely regarded as a household panacea. Much of this, naturally, was fanciful, but notwithstanding this notion as to its virtues, it did work wonders, but why, no one seemed to know until experimenters began to give some attention to the subject of its hidden properties. Within the last year or so, much has been written extolling in the strongest terms its alleged virtues. One excellent feature about this substance is, in the granted assurance that it will work, in many critical surgical cases, where heretofore, serious results have been the outcome from using other substances in a like manner. This has been largely due to the fact that it fulfills a function that so many other disinfectants cannot begin to do.

By reason of this, it has been the means of developing a new line of procedure in operative technic owing to its manifested virtues, which permits of certain proscribed methods. Facts seem to bear out the statement that as to recent wounds, no matter how unclean they may be, tincture of iodine can be relied upon to prevent secondary conditions. There appears to be a general feeling

*Presented to the thirty-fifth annual meeting of the New York Pharmaceutical Association, June, 1913.

of confidence with medical and surgical exponents, whenever it is applied in cases of this kind.

By the medical fraternity it has come to be considered a multum in parve. It appears that the first confirmed reports as to its ascribed virtues, and its demonstration into American surgery, was by Major Frank T. Woodbury of the U. S. A. Medical Corps in 1906, when he used it for its value as an antiseptic and disinfectant in a case of Caesarean section on a patient from the Island of Samar. In this connection Bauman, of New York, also claims to have used it in the emergency wards of the St. Marks Hospital, and Mt. Sinai Hospital Dispensary in the years 1905 and 1907, respectively. The earliest reports in which it was applied in severe cases of flesh wounds was by Prof. Powell at the Rush Medical College in Chicago, during the years 1869 and 1870. He used it in woorarra poisoning. In the year of 1907, Dr. Knowles, of Iowa, applied it in rattle snake bites with excellent results. What controversy there may be on the subject, it is quite true that Major Woodbury is entitled to some credit on the work he has done in this direction. At least his published reports in the N. Y. Medical Journal of May, 1907, and the same journal in December, 1910, holds that he was a pioneer in its use for general surgical purposes. It seems rather strange that it required almost a century for us to determine the peculiar properties iodine held in reserve, for from the time old Courtins in 1811, a renderer of fats and a boiler of soaps, living in Paris at that time, observed the peculiar action of Kelp liquors on his copper boilers, to the discovery by Woodbury, it has required just ninety-five years to produce the evidence. A rather long time beating about for some one to find out its virtues.

In the 1910 report of Major Woodbury, six interesting cases are cited in detail, in which solution of iodine was the only antiseptic and disinfectant used. The case reports are very profusely explained. In this, his conclusions on iodine are so exceptionally good, that the same is well worth the repetition, for the reason, that it conveys a general idea as to the disclosures made by the use of iodine in actual practice.

"* * * Iodine is the long desired ideal disinfectant and antiseptic. It is cheap, easily obtainable, can be carried in small bulk, is efficient in high dilution, does not damage tissue even where its vitality has been much reduced by traumatism or infection, it has been invariably successful as a germicide under all conditions when the drug and the germs have been brought together, and though it has great power of tissue penetration the writer has yet to see a case of poisoning even when it is mopped in full strength on the peritoneum and in the parturient uterus."

"It can be used to disinfect the area of operation without previous preparation, to sterilize instruments, suture material, dressings, and the hands of the surgeon, during the time that the patient is going under the anesthetic. * * *"

In another part of his paper he writes interestingly as follows:

"* * * Tincture of iodine is the most valuable drug that railroad and military surgeons can have * * * a good surgeon and tincture of iodine will show as good results as the finest marble lined operating pavilion served by the

most scrupulous followers of Lister. * * *" This paper is full of practical thoughts as regards the application of tincture of iodine in medicine and surgery.

Other references of a more recent nature are as follows:

Merck, in his Annual Report for the year 1911, states: "Although it is questioned by some, whether tincture iodine has a strong bactericidal action, yet painting with iodine is recognized to be one of the best, if not the best method for disinfecting the skin."

Others are as follows:

Casassorici calls tincture iodine an excellent antiseptic in minor surgery. He painted extremely dirty wounds with it, sutured them, again painted them, and the wounds rapidly healed.

Prof. Reclus prefers it over all other known surgical disinfectants, for wounds on workingmen's hands, grimed with filth and dirt.

Hofmann used it in about 100 abdominal cases without one intestinal obstruction.

Mantelli applied it in over 700 operations with excellent results.

Sick, in 150 appendicitis cases had no obstruction by adhesions from its use.

Gilbert recommends it in corneal ulcers with satisfaction.

Schmid suggests its use as he has applied it in all midwifery operations.

Franke extols its virtues in surgical tuberculosis, before and after operation.

Babes, Ferrari and Mario used it largely in erysipelas, while Hildebrand injected it in cases of obstinate infectious urethritis.

Holden experienced wonderful results in luetic conditions, externally and internally. Schantz highly recommends it in all wounds to insure scar production with the least possible danger of disfigurement. Senn, Jewett, Grossich and others have used iodine as a disinfectant of the skin in the area of operation to the exclusion of all others. With Bernucci, he used it entirely for disinfecting the hands prior to operation. In lumbar anaesthesia, Tomaschewski claims that the technic must be done under most extreme asepsis, and to this end he paints the skin with tincture iodine. And thus may the reports be enumerated ad-libitum. In most all of the cases thus far reported, tincture iodine was used in from two to ten percent, and in some cases the concentrated tincture made by evaporating one of the above.

Now in the face of all this, of what interest is it to the pharmacist? In this connection the story is a short one. In the first place, to put this matter before the medical contingent of your immediate section, it must be done in such a manner as to enlist interest and attention.

In the second place, you must make certain claims for your product over the ordinary tincture and be prepared to substantiate them.

Thirdly, you should exercise your ability, and get out a nice neat package, something unusual but useful, in conjunction with an entertaining line of talk in booklet form as to its uses and application in medical and surgical proceedures. Much of this information will be found in books, various medical journals and those papers of Major Woodbury.

Next, how can I make my product better than the ordinary tincture which is sold all over the country?

Briefly, any one can make tincure iodine, but not every one knows what that tincture may contain. In this alone you have a means of creating a market. For instance, assay your finished product, assign a date on your package as to the above, note its absolute strength, guarantee its purity, and assure the absence of impurities, by a truthful declaration on the label. As to impuities, we know iodine contains more or less non-volatile matter, pcisonous cyanogens, irritating chlorin compounds, and caustic bromin products. By testing for these, eventually removing them if they be present, and giving simple tests whereby the average physician can determine for himself as to whether or not you are telling the truth, would undoubtedly establish your prestige and become a new source of revenue. Two men got rich on making cold cream and selling it to the drug trade. It was not so much that they knew of a better process, as much as it was in the materials which they used in producing it, along with care in its preparation.

As to the introduction of it to the medical profession, every pharmacist will have to adopt such measures as will best suit the needs of the section in which he thrives. Two things, however, are important.

One is, the literature which you send out must be gotten up to attract attention and be of interest, so that it will not go the way many poorly constructed documents have gone. Reliable data, with credit to the investigators, along with other suggestions as to its wide range of application both in medicine and surgery as you know of, should also be given in a neatly arranged brochure. Good literature pays, especially when it is sent to people of a discriminating turn of mind.

Following this is the second thought, and this relates to the container and package. This will also depend entirely upon the tastes of the individual, insofar as it pertains to the package, but as to the container, this will be a more difficult problem. Up to the present we have no suitable iodine receptacle. This is truly manifested in the average physician's grip. If one will but take notice, he will observe that the tincture iodine bottle in the above is the most unsightly one of the whole group. What is needed is a handy, serviceable container.

From the foregoing, I think enough has been stated to prove the efficiency of tincture iodine, especially in surgical practice. Now what remains is, to what extent is the pharmaceutical profession going to put this valued drug before the medical fraternity, and derive a fair profit in so doing?

I can only state in conclusion, that such as it is, it is worthy of a most earnest and sincere trial, for if surgery has reasons to acclaim it one of the most essential things to the operating room, it should of necessity, behoove the pharmacist in consequence thereof, to supply it.

REPORT OF P. P. A. COMMITTEE ON PATENTS AND TRADEMARKS.*

F. E. STEWART, M. D., CHAIRMAN, PHILADELPHIA.

Pharmacists throughout the country are interested in the U. S. P. and N. F. propaganda. They want physicians to prescribe U. S. P., and N. F. products in place of proprietary medicines. This motive is primarily a selfish one, and, secondarily altruistic. They want a return to good old times when doctors wrote extemporaneous prescriptions to be compounded by the druggist at fair profit. This is a selfish reason, but, as pharmacists, licensed by the state to practice pharmacy, they have a right to protest when business men without either education or license invade the pharmaceutical field and take their business away from them. They believe that the public would be better off under a system of extemporaneous prescriptions written by competent physicians and compounded by competent pharmacists than under a system of ready-made prescriptions compounded at wholesale by manufacturing houses. This is altruistic.

Now, if pharmacists were consistent in this matter, the U. S. P. and N. F. propaganda would be more successful. But to a large extent each pharmacist deals in ready-made preparations of his own, which he offers to the public for self-medication and thus not only prescribes without diagnosis, but competes unfairly with the doctor in treating the sick. Consistency is therefore the first thing necessary in cleaning up the propaganda and fitting it for successful use.

Opposed to the U. S. P. and N. F. propaganda are the manufacturers of "proprietary" medicines of all kinds, including so-called patent medicines advertised to the general public for self-medication, secret or semi-secret specialties advertised to the medical profession, and manufacturers of unofficial chemicals advertised in the medical journals.

There is another class of products the manufacturers of which favor the propaganda, provided some plan can be adopted whereby the introduction of new and useful chemic and pharmaceutic inventions can be inhibited from competition so that capital invested in the working and marketing of the same may be protected for limited times.

The patent law was devised for that very purpose. As pointed out in former reports, a patent is a contract between the inventor and the public, whereby the inventor receives a seventeen-year monopoly grant in exchange for the publication of his invention.

Progress is seriously hindered unless new products can be impartially discussed in medical societies and colleges and in the medical journals. Such discussion is impractical if the products are commercially controlled and monopolized by industrial manufacturers.

Most foreign countries will not grant patents for materia medica products, but limit the grants to new processes and machinery for manufacture. Germany has been one of the foreign countries taking that position, but an attempt is now

*Presented to Pennsylvania Pharmaceutical Association, June, 1913.

being made to change the German patent law so that it may be in harmony with the United States patent law and thus enable the German manufacturing houses to secure the same protection in their own country which they have been enjoying in America.

The medical profession is opposed to the monopoly of materia medica products. A physician who obtains a patent for a materia medica product or a surgical instrument or a method of treating disease, is at once ostracized by the profession. Yet at the same time, physicians prescribe monopolized products and medical journals derive a large part of their income from the advertisements of their manufacturers. When the profession is criticised for its inconsistency, the excuse advanced is that pharmacy and manufacturing chemistry are branches of commerce and not professional in character. Consequently, while it is not ethical for a professional man engaged in the practice of medicine to patent his inventions because he must occupy a judicial position toward them which he cannot do, if he is interested in their sale, it is not expected that the pharmacists and manufacturers will occupy a judicial position toward materia medica products and their patenting by pharmacists and manufacturers is therefore allowable. This denies to the pharmacist the right to consider himself a professional man. According to the medical profession, pharmacy is not a profession, neither indeed can it be so long as the pharmacist is obtaining an income from the sale of drugs. Is the pharmacist willing to give up the professional ideal and be classed merely as a merchant or tradesman? He cannot be a professional man, except as a producer of materia medica products. If he produces those products in conformity with professional and scientific requirements, he has just as much right to claim to be a professional man as the physician who accepts fees for his services and is therefore to that extent engaged in a commercial vocation.

The question therefore is, can the pharmaceutical profession endorse the scheme for monopolizing materia medica products by commercial houses, controlled by business men and conducted in opposition to professional and commercial requirements? The educational interests of pharmacy will answer in the negative. What has the pharmaceutical profession itself to say about it?

Your chairman has just returned from the annual meeting of the American Medical Association held in Minneapolis. He takes pleasure in reporting that the members of the Council on Pharmacy and Chemistry present were in harmony with those who object to product patents as applied to materia medica products. They favor process patents but believe with us that the products themselves should be open to competition, so that they may be impartially discussed in the medical journals, societies and colleges. It can hardly be expected that the medical press will accept contributions from persons engaged in materia medica commerce, especially when they relate to commercially controlled products. Such communications are classed by the journals as advertisements to be published in the advertising columns and paid for by the manufacturers. This is unfortunate as it deprives the medical profession of information from scientific men employed by the manufacturers, except in a roundabout way. It would be far better if such communications were received and submitted to impartial criticism by scientists engaged by competing houses, so that physicians

might be placed in a judicial position in regard to them. Furthermore, it would encourage the manufacturers to employ graduates from our medical and pharmaceutical colleges in their scientific departments and thus open the door for educated men posted in the various branches of materia medica science.

At least one house is thoroughly in harmony with the educational institutions engaged in teaching the pharmacologic arts. We refer to the H. K. Mulford Company, because we believe that the advanced position taken by that house should receive recognition. In a recent letter written in reply to one of the leading Minneapolis physicians, who wished data in regard to the adrenalin case to bring before the Association, the following paragraphs occur:

"We opposed the product patent for years because of its monopolistic tendencies. This case (adrenalin case) is a concrete example of what it is possible to do with the product patent in preventing products of similar nature being prepared, as also preventing all advance in science. We believe that the medical and pharmaceutical professions should demand a repeal of our patent law of the product patent clause when pertaining to medicinal substances.

"We have repeatedly brought this subject to the attention of medical and pharmaceutical bodies, and hope the time will come when the clause relating to the patenting of materia medica products in our patent laws will be repealed, or so modified as to prevent monopoly on the ground that it hinders progress in medical science and in the arts of pharmacy and drug therapeutics.

"We have consistently refrained from availing ourselves of patent protection for the new products discovered by our Research Department until very recently. Within the last month we have been granted a patent for a new synthetic chemical, which we found necessary to secure to not only protect our commercial interests, but to protect the medical and pharmaceutical professions from unfair monopoly. This product patent we are ready at any time to abrogate, provided we can obtain proper support from the medical and pharmaceutical professions in our protest against the abuse of the patent and trade-mark laws. We are ready at any time to cooperate with the professions as represented by their national organizations in an appeal to Congress for a modification of these laws having as its object the rectification of the several abuses to which we have called your attention."

The medical profession has for a long time recognized that capital invested in the publication of medical literature should be protected by copyright, and it is considered perfectly ethical for physicians to associate themselves with medical publishers as editors of medical journals or authors of medical books for the purpose of securing financial gain. Why then should not the medical profession endorse the patenting of materia medica products and the association of physicians, chemists, physiologists and other scientific men with commercial houses, for the proper introduction of new materia medica products. Let us briefly consider some of the reasons why they should endorse such a plan and also reasons for not doing so.

The Constitution of the United States gives Congress the power "to promote the progress of science and the useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." It is reasonable to suppose that the proper application of the patent law to materia medica inventions would promote progress in the science of medicine and in the useful arts of preparing materia medica products and applying them to the treatment of the sick.

A patent is a contract between the inventor and the government, representing the public at large. The consideration moving from the inventor is the production of a new and useful thing, and the giving to the public of a full knowledge thereof by means of a proper application for a patent, whereby the public is enabled to practice the invention when the patent expires.

The consideration moving from the government is the grant of an exclusive right of manufacture for a limited time (seventeen years) and this grant the government protects and enforces through its courts.

"The statute enacts that before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor in writing to the Commissioner, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding and using it in such full, clear, concise and exact terms as enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same."

What better plan for the advancement of science could possibly be conceived of than the plan of a patent law? The theory upon which the patent and copyright laws rest is, that it is to the advantage of the whole community that authors and inventors should be rewarded, and that no measure of reward can be conceived more just or equitable, and bearing a closer relation to the benefit conferred by the particular individual, than to grant him the sole right to his writing or discovery for a limited period of time.

Why then should the medical profession object to materia medica patent? There are two great reasons for this opposition. The first is the scheme for perpetuating the monopoly obtained by patents, by registering as a trademark the name of the patented article and thus controlling its sale indefinitely. To be sure, the Supreme Court of the United States in its decision in the Singer Sewing Machine case, declared this scheme to be contrary to law, but in spite of this fact, every case must be fought out on its merits, thus subjecting those who wish to take advantage of this decision, to expensive lawsuits. The trademark laws should be so modified as to avoid this difficulty.

The second objection is that the patent law is not being applied to materia medica products in such manner as to secure its benefits to the public. The law requires that an invention to be patented must be *new and useful*. Patents are often granted for materia medica products which do not in fact comply with these requirements. A materia medica product may be new from a chemical point of view and yet not be useful from a therapeutic point of view. Therapeutic verdicts can only be obtained by the cooperative investigation of many competent observers extended over years of time and conducted under such differences of environment and conditions as will eliminate errors due to the personal equation. How, then, can it be determined beforehand that a new materia medica product is therapeutically useful? How can it be determined by a few clinical reports obtained from physicians who have not been trained to be competent observers? How can it be determined at all until the product has been submitted to comprehensive pharmacologic and clinical research? It was evident that these questions must be satisfactorily answered before the medical profession can consistently endorse the patenting of materia medica products.

The patent law requires a written description of the invention, and of the manner and process of making, constructing, compounding and using it. How can the inventor of a new chemical product comply with the requirements in regard to the using of a new product as a therapeutic agent? The medical profession objects to the teaching of therapeutics by commercial houses. In this

REPORT OF P. P. A. COMMITTEE ON PATENTS AND TRADEMARKS.*

F. E. STEWART, M. D., CHAIRMAN, PHILADELPHIA.

Pharmacists throughout the country are interested in the U. S. P. and N. F. propaganda. They want physicians to prescribe U. S. P., and N. F. products in place of proprietary medicines. This motive is primarily a selfish one, and, secondarily altruistic. They want a return to good old times when doctors wrote extemporaneous prescriptions to be compounded by the druggist at fair profit. This is a selfish reason, but, as pharmacists, licensed by the state to practice pharmacy, they have a right to protest when business men without either education or license invade the pharmaceutical field and take their business away from them. They believe that the public would be better off under a system of extemporaneous prescriptions written by competent physicians and compounded by competent pharmacists than under a system of ready-made prescriptions compounded at wholesale by manufacturing houses. This is altruistic.

Now, if pharmacists were consistent in this matter, the U. S. P. and N. F. propaganda would be more successful. But to a large extent each pharmacist deals in ready-made preparations of his own, which he offers to the public for self-medication and thus not only prescribes without diagnosis, but competes unfairly with the doctor in treating the sick. Consistency is therefore the first thing necessary in cleaning up the propaganda and fitting it for successful use.

Opposed to the U. S. P. and N. F. propaganda are the manufacturers of "proprietary" medicines of all kinds, including so-called patent medicines advertised to the general public for self-medication, secret or semi-secret specialties advertised to the medical profession, and manufacturers of unofficial chemicals advertised in the medical journals.

There is another class of products the manufacturers of which favor the propaganda, provided some plan can be adopted whereby the introduction of new and useful chemic and pharmaceutic inventions can be inhibited from competition so that capital invested in the working and marketing of the same may be protected for limited times.

The patent law was devised for that very purpose. As pointed out in former reports, a patent is a contract between the inventor and the public, whereby the inventor receives a seventeen-year monopoly grant in exchange for the publication of his invention.

Progress is seriously hindered unless new products can be impartially discussed in medical societies and colleges and in the medical journals. Such discussion is impractical if the products are commercially controlled and monopolized by industrial manufacturers.

Most foreign countries will not grant patents for materia medica products, but limit the grants to new processes and machinery for manufacture. Germany has been one of the foreign countries taking that position, but an attempt is now

*Presented to Pennsylvania Pharmaceutical Association, June, 1913.

being made to change the German patent law so that it may be in harmony with the United States patent law and thus enable the German manufacturing houses to secure the same protection in their own country which they have been enjoying in America.

The medical profession is opposed to the monopoly of materia medica products. A physician who obtains a patent for a materia medica product or a surgical instrument or a method of treating disease, is at once ostracized by the profession. Yet at the same time, physicians prescribe monopolized products and medical journals derive a large part of their income from the advertisements of their manufacturers. When the profession is criticised for its inconsistency, the excuse advanced is that pharmacy and manufacturing chemistry are branches of commerce and not professional in character. Consequently, while it is not ethical for a professional man engaged in the practice of medicine to patent his inventions because he must occupy a judicial position toward them which he cannot do, if he is interested in their sale, it is not expected that the pharmacists and manufacturers will occupy a judicial position toward materia medica products and their patenting by pharmacists and manufacturers is therefore allowable. This denies to the pharmacist the right to consider himself a professional man. According to the medical profession, pharmacy is not a profession, neither indeed can it be so long as the pharmacist is obtaining an income from the sale of drugs. Is the pharmacist willing to give up the professional ideal and be classed merely as a merchant or tradesman? He cannot be a professional man, except as a producer of materia medica products. If he produces those products in conformity with professional and scientific requirements, he has just as much right to claim to be a professional man as the physician who accepts fees for his services and is therefore to that extent engaged in a commercial vocation.

The question therefore is, can the pharmaceutical profession endorse the scheme for monopolizing materia medica products by commercial houses, controlled by business men and conducted in opposition to professional and commercial requirements? The educational interests of pharmacy will answer in the negative. What has the pharmaceutical profession itself to say about it?

Your chairman has just returned from the annual meeting of the American Medical Association held in Minneapolis. He takes pleasure in reporting that the members of the Council on Pharmacy and Chemistry present were in harmony with those who object to product patents as applied to materia medica products. They favor process patents but believe with us that the products themselves should be open to competition, so that they may be impartially discussed in the medical journals, societies and colleges. It can hardly be expected that the medical press will accept contributions from persons engaged in materia medica commerce, especially when they relate to commercially controlled products. Such communications are classed by the journals as advertisements to be published in the advertising columns and paid for by the manufacturers. This is unfortunate as it deprives the medical profession of information from scientific men employed by the manufacturers, except in a roundabout way. It would be far better if such communications were received and submitted to impartial criticism by scientists engaged by competing houses, so that physicians

might be placed in a judicial position in regard to them. Furthermore, it would encourage the manufacturers to employ graduates from our medical and pharmaceutical colleges in their scientific departments and thus open the door for educated men posted in the various branches of materia medica science.

At least one house is thoroughly in harmony with the educational institutions engaged in teaching the pharmacologic arts. We refer to the H. K. Mulford Company, because we believe that the advanced position taken by that house should receive recognition. In a recent letter written in reply to one of the leading Minneapolis physicians, who wished data in regard to the adrenalin case to bring before the Association, the following paragraphs occur:

"We opposed the product patent for years because of its monopolistic tendencies. This case (adrenalin case) is a concrete example of what it is possible to do with the product patent in preventing products of similar nature being prepared, as also preventing all advance in science. We believe that the medical and pharmaceutical professions should demand a repeal of our patent law of the product patent clause when pertaining to medicinal substances.

"We have repeatedly brought this subject to the attention of medical and pharmaceutical bodies, and hope the time will come when the clause relating to the patenting of materia medica products in our patent laws will be repealed, or so modified as to prevent monopoly on the ground that it hinders progress in medical science and in the arts of pharmacy and drug therapeutics.

"We have consistently refrained from availing ourselves of patent protection for the new products discovered by our Research Department until very recently. Within the last month we have been granted a patent for a new synthetic chemical, which we found necessary to secure to not only protect our commercial interests, but to protect the medical and pharmaceutical professions from unfair monopoly. This product patent we are ready at any time to abrogate, provided we can obtain proper support from the medical and pharmaceutical professions in our protest against the abuse of the patent and trade-mark laws. We are ready at any time to cooperate with the professions as represented by their national organizations in an appeal to Congress for a modification of these laws having as its object the rectification of the several abuses to which we have called your attention."

The medical profession has for a long time recognized that capital invested in the publication of medical literature should be protected by copyright, and it is considered perfectly ethical for physicians to associate themselves with medical publishers as editors of medical journals or authors of medical books for the purpose of securing financial gain. Why then should not the medical profession endorse the patenting of materia medica products and the association of physicians, chemists, physiologists and other scientific men with commercial houses, for the proper introduction of new materia medica products. Let us briefly consider some of the reasons why they should endorse such a plan and also reasons for not doing so.

The Constitution of the United States gives Congress the power "to promote the progress of science and the useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries." It is reasonable to suppose that the proper application of the patent law to materia medica inventions would promote progress in the science of medicine and in the useful arts of preparing materia medica products and applying them to the treatment of the sick.

A patent is a contract between the inventor and the government, representing the public at large. The consideration moving from the inventor is the production of a new and useful thing, and the giving to the public of a full knowledge thereof by means of a proper application for a patent, whereby the public is enabled to practice the invention when the patent expires.

The consideration moving from the government is the grant of an exclusive right of manufacture for a limited time (seventeen years) and this grant the government protects and enforces through its courts.

"The statute enacts that before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor in writing to the Commissioner, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding and using it in such full, clear, concise and exact terms as enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound and use the same."

What better plan for the advancement of science could possibly be conceived of than the plan of a patent law? The theory upon which the patent and copyright laws rest is, that it is to the advantage of the whole community that authors and inventors should be rewarded, and that no measure of reward can be conceived more just or equitable, and bearing a closer relation to the benefit conferred by the particular individual, than to grant him the sole right to his writing or discovery for a limited period of time.

Why then should the medical profession object to materia medica patent? There are two great reasons for this opposition. The first is the scheme for perpetuating the monopoly obtained by patents, by registering as a trademark the name of the patented article and thus controlling its sale indefinitely. To be sure, the Supreme Court of the United States in its decision in the Singer Sewing Machine case, declared this scheme to be contrary to law, but in spite of this fact, every case must be fought out on its merits, thus subjecting those who wish to take advantage of this decision, to expensive lawsuits. The trademark laws should be so modified as to avoid this difficulty.

The second objection is that the patent law is not being applied to materia medica products in such manner as to secure its benefits to the public. The law requires that an invention to be patented must be *new and useful.* Patents are often granted for materia medica products which do not in fact comply with these requirements. A materia medica product may be new from a chemical point of view and yet not be useful from a therapeutic point of view. Therapeutic verdicts can only be obtained by the cooperative investigation of many competent observers extended over years of time and conducted under such differences of environment and conditions as will eliminate errors due to the personal equation. How, then, can it be determined beforehand that a new materia medica product is therapeutically useful? How can it be determined by a few clinical reports obtained from physicians who have not been trained to be competent observers? How can it be determined at all until the product has been submitted to comprehensive pharmacologic and clinical research? It was evident that these questions must be satisfactorily answered before the medical profession can consistently endorse the patenting of materia medica products.

The patent law requires a written description of the invention, and of the manner and process of making, constructing, compounding and using it. How can the inventor of a new chemical product comply with the requirements in regard to the using of a new product as a therapeutic agent? The medical profession objects to the teaching of therapeutics by commercial houses. In this

objection, the profession is abundantly supported by the deplorable conditions existing in the materia medica supply business. We refer particularly to the methods employed by the manufacturers of new materia medica products in their advertising. The publication of accurate information obtained from competent observers after it has been submitted to the censorship of unbiased authorities is to be commended. But the publication of unsupported testimony and hearsay evidence and its circulation to the medical profession by commercial houses is a serious menace to medical science and also to the practice of pharmacy and therapeutics.

This objection may be obviated by the legislation already passed and in process of advocacy before state legislatures on the subject of advertising. The Sherley Bill has already become a national law for the control of interstate commerce so far as advertising is concerned. Bills are being presented to all of the states in the Union having as their object the regulation of advertising. These bills are supported by the advertising fraternity itself. What is known as the "Printer's Ink Bill" is being used as a type for this legislation. Now, if it is found practicable to enforce laws making it a misdemeanor to publish misleading advertising, one of the most serious objections to the patenting of materia medica products will be removed.

It is probable that if these objections can be obviated and the patenting of materia medica products placed on a basis permitting the teaching of accurate information concerning them, the same to be under the control of the medical profession, the profession will endorse the patent system as applied to the newer materia medica.

One of the most important occurrences relating to the application of the patent law transpiring during the present year was the decision of the Supreme Court of the United States in the case of the Bauer Chemical Co. against James O'Donnell. The Bauer Chemical Co., as is well known, are the American owners of Sanatogen, and James O'Donnell is a cut-rate druggist of Washington City. Sanatogen is covered by letters patent issued by the United States Government, and, acting under their supposed rights under our patent laws, the Bauer Chemical Co. fixed the price at which Sanatogen should be sold, and placed on the packages thereof a notice to the retailer that the article was patented, and warning him that "any sale at a less price than that so fixed will constitute an infringement of our patent No. 601,995, under which Sanatogen is manufactured; and all persons so selling or using packages or contents will be liable to injunction and damages." The further notice was given "that a purchase is an acceptance of this condition, all rights reverting to the undersigned in the event of violation." O'Donnell, having purchased Sanatogen from certain wholesale druggists, disregarded this notice and sold at retail original packages of the same, which bore the aforesaid notice, at less than the price fixed and appearing thereon. Persisting in this practice, the Bauer Chemical Co. brought suit against him for infringement. The Supreme Court, reversing the decisions of several inferior United States Courts, held that there was no infringement of the patent rights of the Bauer Chemical Co.; and for the first time this important question has been definitely determined by the court of last resort.

The inventor has a perfect right to fix the price of his product, but after he has sold it, his control ceases and the purchaser can resell at any price he may desire. The same applies to the so-called trademark preparation. This was also decided by the Supreme Court in the case of Miles Medical Co. vs. Park & Sons. The decision was rendered in 1910. Justice Hughes said:

"The complainant relies upon the ownership of its secret process and its rights are to be determined accordingly. Anyone may use it who fairly, by analysis and experiment, discovers it. But the complainant is entitled to be protected against invasion of its rights in the process by fraud or by breach of trust or contract."

In other words, the fact that the plaintiff happened to have a monopoly in the manufacture of its preparations did not give it a right to such monopoly, as would be the case with goods protected by patent. The learned justice said that while the manufacturer of a patented article was entitled to certain privileges in return for the invention he had made, which would become public property at the expiration of his grant, the manufacturer of goods under a secret process was entitled to no such consideration. He also said "agreements are combinations between dealers, having for their sole purpose the destruction of competition and the fixing of prices, are injurious to the public interest and void." In the recent decision of the Supreme Court, this principle has been applied to patented articles, so that now it is illegal for manufacturers to attempt to dictate prices, either for patented or unpatented materia medica products.

There is nothing in this decision nor in that of the Dr. Miles Medical Company, which preceded and foreshadowed it, to prevent a manufacturer from selling his wares through agents exclusively, upon whom he still has the right to impose any conditions that he desires, and these conditions the agents must observe upon pain of revocation of their agency. But the agency must be a bona fide one and not mere subterfuge to get around the law.

In conclusion, your committee begs to call attention to the fact that if the same amount of attention were paid by the pharmaceutical profession to the proper application of the patent and trademark laws, to the materia medica supply business, as has been given to maintaining prices for nostrums, we would not at the present time be called upon to solve the perplexing problems now imposed upon us by the existence of conditions which would never have occurred if we had been true to the principles taught us by our colleges of pharmacy. Pharmacy is a branch of medical science and practice and the pharmacists should cooperate with the doctor in the practice of the pharmacologic arts. There can be no two medical professions, one parading under the name of pharmacy. It is the function of the doctor to treat the sick, that of the pharmacist to prepare the medicine. Whether or not medicine is prepared wholesale by great manufacting houses is of secondary importance to the greater question in regard to who is to control medical and pharmacal practice. These arts should be under the joint control of the medical and pharmaceutical professions. Their practice should be confined exclusively to educated and licensed physicians and pharmacists, each working in their respective fields, and the patent and trademark laws should be so applied as to harmonize with the medical and pharmacal laws and not used for protecting a commercial business carried on in unfair compe-

tion with licensed practitioners by business men ignorant alike of medicine and pharmacy, and not willing to comply with professional, scientific requirements.

Following the reading of the above report, J. W. England presented the following, which was unanimously adopted:

"WHEREAS, The U. S. Patent Laws permit inventors to patent, not only *processes* of manufacture, but also the *products* of processes *as such,* so that it is impossible for any other inventors, inventing new and original processes for products already product-patented, to market the products, and

"WHEREAS, The result of this procedure has been to permit foreign manufacturers to both process-patent and product-patent medicinal chemical compounds, estop American invention and exploit the American market by demanding higher prices for such products than those exacted in the countries of production, therefore, be it

"*Resolved,* That the Pennsylvania Pharmaceutical Association in annual meeting assembled hereby petition the Congress of the United States to enact such legislation as will give the President of the United States or the U. S. Commissioner of Patents authority *to suspend a product-patent if it can be shown that the product patented can be made by a process of manufacture that is entirely new and original,* and

"*Resolved,* That the Secretary of this Association be directed to send a copy of these resolutions to the President of the United States and the U. S. Congress in session now assembled."

NEW PROOF OF THE PANCREATIC ORIGIN OF DIABETES.

The evidence now seems conclusive that diabetes is a result of a pancreatic fault, and while it is admitted that this may not be the sole disorder in every case, it is the most prominent factor in the majority of cases, and present in every case.

Weichselbaum, after years of study and the examination of the pancreas in 183 cases of diabetes, states that "in every one of this series" he found distinct and characteristic lesions in the islets of Langerhans, while in a larger series of control cases, representing many different diseases, no corresponding changes were found. He suggests that the reason some of these lesions have been overlooked by others is that in hydropic degeneration, if the tissues have not been properly prepared and preserved, these lesions are easily overlooked.

The internal secretion of the islands of Langerhans of the pancreas has been designated by Starling as "the anti-diabetic hormone," by others as "the pancreas co-ferment," "the internal secretion of the pancreas," and as "the pancreas hormone."

A new demonstration that diabetes is due to absence of the internal secretion of the pancreas, and may be corrected by addition of this secretion, to diabetic blood has recently been made by Knowlton & Starling—*The Metabolist.*

Papers Presented to Local Branches

LABORATORY EQUIPMENT FOR THE MANUFACTURE OF GALENICALS BY THE RETAIL PHARMACIST.*

E. FULLERTON COOK, P. D.

The first consideration in planning for the equipment of a small laboratory may well be the space available for the work.

If the opportunity is given to begin with an empty room, ideal conditions are at hand, but most frequently manufacturing is carried on in a retail drug store as an adjunct to the prescription counter and during the odd moments available between customers and other store duties.

In either case, the following general principles may be kept in mind and made a feature of the department if their value is recognized and the proprietor is in earnest.

Cleanliness. Conditions should be such that cleanliness in the work will be possible. Dust should be eliminated in large measure and all equipment, floor, etc., thoroughly scrubbed regularly and frequently. This will help greatly in reducing loss and deterioration in preparations from the introduction of microscopic growths and is but fair to the public.

For health, as well as economic reasons, a rigid maintainance of sanitary conditions is as important in preparing medicines as in making foods.

Arrangement. The second principle, worthy of constant attention, is the arrangement of stock, library, working counter, sink, etc., in such a way that a minimum waste of time and energy results.

"Efficiency" is the keynote of big successes, and it should be written large in every pharmacy today, and the managing head should be studying every day's work and particularly routine duties, with the definite purpose of reducing lost motion and stopping unnecessary waste of energy, time and materials.

A kitchen cabinet has been put on the market which is well worthy of study in this connection. A working counter is provided and above and below in closets, open shelves or drawers are arranged every form of apparatus likely to be needed, and also a stock of the more frequently used materials.

At very little expense this plan could be adapted to a working counter for the pharmacist and by a careful study of the needs he could have within reach every kind of apparatus required for common operations. This could include distilled water and alcohol made available at a small spigot connected with the supply. The latter should be a key spigot to prevent waste or theft.

Provision could be made for the disposal of waste materials by having an opening in the counter above a galvanized iron can.

* Read before Philadelphia Branch A. Ph. A.

The sink with draining board is an important adjunct and should join the working counter on the right or left, or preferably be immediately back of the operator, requiring only his turning to be made available. This sink should be deep, to avoid splashing, and to afford, when filled with water, a satisfactory place in which to wash bottles, apparatus, etc.

Probably one of the best forms of sinks available is a well-built wooden box, lined with sheet lead. The spigots should have a section of rubber hose slipped over the opening and this combination, lead and rubber, will prevent many breaks in glass apparatus. Hot water should be provided if possible at this sink, as its uses are many and the convenience great. A water-back can be fitted into the furnace at little cost and will give quantities of hot water throughout the winter, and a small laundry stove, burning little coal, or a small gas water heater, will help out in the summer.

Hot water is an essential also at the soda fountain for the proper cleansing of glasses, and the same heating plant will serve both purposes.

Apparatus. He should also provide sufficient apparatus to do the work he is planning and accurate measuring and weighing facilities.

Executive Department. The trained pharmacist will not lose sight of the brain part of his equipment. This means a desk and bookcase with some plan for keeping records, formulas, costs, etc., and a library more or less extensive.

These few general principles are applicable to all conditions under which manufacturing pharmacy is carried out; they are only different in the extent to which they are applied.

They may be introduced to advantage at the working counter of long-established stores, in those just being opened, or in a laboratory especially planned for manufacturing.

Now as to the detailed equipment: it is difficult to prepare lists of necessary apparatus since the requirements will vary as the kind of manufacturing to be done in each store varies. I might venture to name a few essentials for the making of U. S. P. and N. F. galenicals, however, although the list will be too long for many and fail to provide the needed equipment in other cases.

It is true, however, that the efficient worker needs but little complicated apparatus and obtains results from the simplest forms of equipment. There is one place, though, where no pains should be spared, namely, in the selection of weighing and measuring facilities.

Measuring. Be sure that graduates and measuring vessels are accurate. It is desirable to have at least

1 pipette (1 cc. in tenths).
1 pipette (in minims).
1 15 cc. graduate, conical.
1 1 oz. graduate, conical.
1 250 cc. graduate, conical.
1 8 oz. graduate, conical.
1 500 cc. graduate, cylindrical.
1 1 pint graduate, cylindrical.
1 1 quart copper measure.
1 1000 cc. copper measure.

When measuring small quantities of oils the custom of making dilutions in alcohol (say 10 per cent. dilutions), should not be lost sight of. This will often insure an accuracy in measuring which is not otherwise obtainable.

Weighing. It is very desirable to have a good laboratory balance. Several styles, at reasonable prices, having a slide weight for taring bottles, dishes, etc., are available. This is a great convenience, as many official preparations, solutions, ointments, etc., are made up to a definite weight.

If this form of balance is not provided, but only the counter box balance,, two cans of suitable size, containing sand or shot, can be used satisfactorily as a tare.

It is presumed that the pharmacist will have the smaller, accurate balances for other weighings and would not duplicate these for his manufacturing work.

Heating. Gas is now very generally available and, where it is at hand, a bunsen burner and a one, or preferably a two-burner, gas stove should be provided.

A large sheet-iron gas oven, for a two-burner stove, will be found of much service in many operations. It can be used for making effervescent salts, as an air-bath in evaporating fluidextracts and extracts at low temperatures, for sterilizing glassware and as a protected area in which to prepare sterile preparations.

A water-bath should also be provided. This need not be expensive or elaborate. For years we have used with much satisfaction a water-bath made from an enameled bowl, such as is sold for kitchen use, supporting the dish, beaker or flask in the bowl by a brass wire frame made like a triangle from three pieces of stiff wire with the ends twisted together and bent over the edge of the bowl. This seems to answer every purpose of a water-bath and the bowl can be bought in any size up to two gallons.

Mixing. An assortment of mortars and dishes should be at hand. The kinds will depend on the particular needs. Porcelain dishes should be used for strongly acid or alkaline solutions, but the enameled bowls to which reference has been made, can be used for moistening drugs for percolating, for making ointments, and in many other ways.

Spatulas, steel and rubber or wooden, should be ready for use. Some of the kitchen wooden-ware now offered for sale can be used in some cases where steel is not permitted.

Sifting. Several sizes of brass sieves will be found very useful and also a bolting cloth sieve where tooth powders, tooth pastes, toilet powders, etc., are being made. Such work should be done in an enclosed box if possible and an ingenious worker will readily provide an apparatus in which the sieve slides on strips inside a closed box.

For those who make larger quantities of powders requiring mixing and sifting, there are excellent and not very expensive outfits for sale.

Percolating and Filtering. Several sizes of both conical and cylindrical percolators will be of use, and also a metal (tinned-iron) percolator for such drugs as are to be exhausted by a hot menstruum. The receiving bottle for the percolate should be as nearly closed as possible, and a good plan here is to insert very narrow-necked funnels in the bottles. This permits the percolate to enter but practically prevents evaporation.

Funnels of various sizes will be needed, and covers for these should always be used. Flat white enameled lids or dishes are excellent for this purpose and are inexpensive, and may also be used for percolators. What has been said about the receiving bottle for percolates applies equally to filtrates.

For holding these percolators or funnels a good plan is to have a shelf strongly supported by brackets or a base, arranged along the wall. At any planing mill round openings of varying sizes can be cut in this board shelf and percolators or funnels can rest in these holes.

If any amount of simple syrup is being used either in the pharmaceutical manufacturing or at the soda fountain, it will prove economical to install one of the special forms of syrup percolators now on sale.

Macerating. For macerating drugs or dissolving sugar in official syrups where cold processes are required, the five-pint or smaller glass-stoppered, tincture, shelf bottle is particularly well suited.

No store should tolerate the custom of using a wide-mouthed confection tablet jar, and closing the opening with the hand when shaking. It is unsanitary and wasteful.

Grating and Grinding. The cylindrical grater known as an almond grater, sold for household use, having a hopper, a wooden block to press the material against the cutting surface and clamping to the table, will be found a great convenience in any store.

It may be used to advantage in reducing camphor to small particles for solution in oil and is particularly adapted to the reducing of cocoa butter to a state suitable for hand or machine-made suppositories.

Speaking of mills, an inexpensive and efficient form for brittle substances is now offered, called the Quaker City Mill No. 4.

For drug grinding the use of a hand mill is very laborious, but at times of great use. Many forms are now for sale. The larger stores can have an electric motor for such work or one of the small gas engines so extensively sold for use on the farm. If such power is available, it may be applied to tablet making machines and also to the churning of ice cream if the soda fountain business justifies it.

An iron mortar and pestle will often be called into service if the operator is not depending upon a drug miller to supply his raw materials in comminuted form.

For some purposes, notably vanilla, a meat chopper is very satisfactory for preparing the material for maceration.

Ointments. In preparing ointments thorough rubbing is essential. If large quantities are to be handled, a "paint mill" should be used, connected with power, but for the usual quantities made in a store a wide, shallow dish or a large plate of ground glass is best. The rubbing of an ointment in a mortar rarely proves satisfactory in my experience.

Distilled Water. A small automatic water still will be found of great convenience, since the character of many preparations is notably improved by the use of pure water, and a liberal supply is necessary for the best results.

Thermometers. Many preparations are spoiled because the temperatures directed in the formula are not maintained. Expensive thermometers are not necessary for most manufacturing work, although there should be a standard,

tested, thermometer at hand for checking up marked errors in the readings of a cheap thermometer.

The so-called "dairy thermometer" is useful for many operations where an error of a fraction of a degree may be ignored. If a section of rubber hose is slipped over the mercury bulb it will prevent many breaks.

Finishing packages. It is desirable that the pharmacist should learn to wrap packages of pharmaceuticals in the so-called onion-skin paper. This protects the package from being soiled, and being transparent, saves the cost of a second label.

The Library. This has been left until almost the last, but it is of first importance. Just what books it should contain will depend chiefly upon the inclinations of the pharmacist, his training and the scope of the work he plans. It should include, without question, the latest editions of the United States Pharmacopoeia, National Formulary, New and Non-Official Remedies, a Dispensatory, a good Pharmaceutical Formulary, a Text-book on Pharmacy, a book of Synonyms in foreign languages, a book on Toxicology and Doses.

To this may be added many additional reference books, as Foreign Pharmacopoeias, Foreign Formularies, Foreign Text-books on any of the subjects connected with Pharmacy, General Receipt Books, Proceedings of the A. Ph. A., files of Drug Journals, current Drug Journals, books on Chemical Subjects, books on Botanical Subjects, books on Commercial Pharmacy, etc., etc.

Records. Suitable provision should be made for the records of formulas, cost, quantities made, etc. These may take the form of bound or loose-leaf books—or card index outfits. The small loose-leaf ledger, made by the John C. Moore corporation, is inexpensive, serviceable and well adapted to the keeping of laboratory records.

Quality. These statements would not be complete without a caution about the quality of the materials selected for preparations. The retail pharmacist is in direct competition with large manufacturing pharmaceutical houses and unless quality is maintained, his experiment in manufacturing will prove a disappointing failure.

Also, after providing high-grade raw material, see that the official formulas are closely and accurately followed. Failure to obey this point is a frequent cause of unsatisfactory products.

Chemical Analysis and Microscopic Examination. If our pharmacist is planning to analyze and pass upon the quality of all raw materials to enter his preparations and then standardize the finished products where analysis is possible, additional equipment will be required, but it is not the purpose here to enter up that phase of the subject.

Notwithstanding this rather lengthly presentation of this subject, the cost of such an equipment, for thoroughly satisfactory work, is not large, and when all has been summarized its greatest importance is the calibre of the man who will do the work, and this part of the equipment is frequently waiting only the word of encouragement and the directions to go ahead.

ECONOMIC ADVANTAGES IN THE MANUFACTURE OF GALENICALS BY THE RETAIL PHARMACIST.*

ROBERT P. FISCHELIS, B. SC., PH. G., PH. C., PHAR. D.

It seems rather strange that groups of pharmacists all over the country are at this time discussing whether or not they can profitably carry on their profession as it has been taught them; yet that is exactly where pharmacy stands today. Many a pharmacist is today debating whether he shall let the manufacturer take care of what was once his profession and devote himself entirely to merchandising, or whether to continue the rather one-sided struggle.

In the symposium on "The Cause of the Commercial Trend of Pharmacy," presented at the sixtieth annual convention of the American Pharmaceutical Association, one pharmacist ventured the opinion that the underlying cause of this state of affairs was the activity of the manufacturing pharmacist. He further stated that the aggressive and extensive manufacturers had progressed so far in the manufacture of remedies which the pharmacist had formerly compounded himself, that it left very little for the real scientific dispenser to accomplish. In looking over fifty prescriptions compounded on a certain day at one of the Denver stores, he had found that approximately half of them were already prepared. The prescription clerk in these cases used his pharmaceutical knowledge to scientifically pour the contents of one bottle into another and properly label the product and hand it over the counter.

I, for one, do not place much blame upon the manufacturers for conducting their business as they have conducted it. They have a legitimate place in the profession of pharmacy. They have a perfect right to be progressive; and that is exactly where they have outclassed the retail pharmacists of this country, whom I blame more than any other group of men for the present status of pharmacy in the United States.

The average retail pharmacist is a fairly intelligent and educated man. He has been properly instructed in the methods of practicing his profession, and is therefore fit to compound and prepare profitably, with but few exceptions, anything that the manufacturer can compound and prepare.

I admit that the retail pharmacist cannot standardize his preparations physiologically, and further, that the average retail pharmacist has neither the proper equipment nor the time, to properly assay drugs. This work, as well as any other which the pharmacist would conduct at a financial loss, belongs in the field of the manufacturer.

The only way in which the manufacturer encroaches upon the field of the retailer is by preparing and exploiting many of the preparations which really belong to the retail pharmacist alone. This, however, was not brought about in one day, it was not brought about by the superior intelligence or education of the manufacturer, nor was it brought about by the superiority of the manufacturer's preparations over those made by the retail pharmacist. It was brought about

* Presented to the Philadelphia Branch of the American Pharmaceutical Association, May 6, 1913.

by the pharmacist's lapse into a state of inaction and the labors of the manufacturer during the sweet repose of the pharmacist.

On the whole, the manufacturer's methods have been fair. He has become the friend of the physician, and has usurped the position of the pharmacist in this respect. The question now is, can the pharmacist regain the friendship of the physician? My answer is that he can, and I base this answer upon the fact that many pharmacists have never lost this friendship, and many who have had a rude awakening are striving hard to regain it and are successful.

How can the pharmacist gain or regain the friendship of his medical brother? There is one way, and that is to prove that he is capable of taking care of the physician's wants. This implies, not only the necessity of being able to properly compound prescriptions and the preparations which enter them, but also the ability to keep pace with the newer materia medica. The pharmacist must use his education in making up new combinations of drugs, of good appearance and palatability. He should make it a point to read up the medical as well as the pharmaceutical journals, and anticipate the physician's wants in the line of newer remedies. It stands to reason that if the agent of the manufacturer can gain the ear of the medical profession and expound the virtues of his particular remedies, that the pharmacist can do the same and more, for he is able to speak intelligently of the method of preparation and administration of the remedies concerned.

Merle M. Burdick, of Chicago, in a paper entitled "Palatable Medication from the Manufacturer's Point of View," states that "In making standard pharmaceutical preparations in common use, he (the pharmacist) cannot equal the pharmaceutical manufacturer in economy of production or in the uniformity of product. The latter's automatic emulsifying machines permit of regulation of temperature and speed, resulting in qualities unattainable otherwise. His elastic capsule machine encloses the disagreeable oils and balsams. The automatic capsule-filling machine accurately fills many thousand a day—all of these things and many others, the manufacturer can make and furnish to the pharmacist at a cost so slightly above that of the material used, that the pharmacist loses valuable time and money not to employ them." With most of this I cannot agree. Where is there a physician who would not rather have a fresh emulsion of Cod Liver Oil put up for his patient by a retail pharmacist, than prescribe that of the manufacturer, which, though prepared accurately as described above, may stand on the shelves of the store for months or years before it is used. Of course, the physician will not think of this, nor will the manufacturer send him literature covering this point. It is up to the retail pharmacist to educate the physician along these lines, and to show the latter his own products. I need not give you figures in order to convince you that it costs much more to buy emulsions than to make them yourself. As far as the preparation of capsules, both elastic and hard, is concerned, what is the business of the pharmacist, if it is not putting up such prescriptions carefully and accurately, and how can he spend his time more profitably than at just this sort of work? Here again the physician would much rather prescribe his own formula to fit the specific case, were he sure that it would be put up just right, rather than to have the patient use the ready-made preparation, which might contain some ingredient that is undesirable.

Adam B. Heckerman, in a paper presented to the Pennsylvania Pharmaceutical Association and entitled "Should the Retail Pharmacist with a Small Volume of Business, Manufacture His Own Tinctures?" shows clearly that it is to the financial advantage of the retail pharmacist to prepare the majority of his tinctures. Mr. Heckerman gives the catalogue price per pound, and the cost of manufacture per pint of twenty-seven tinctures and finds that he gains from two to thirty cents in all but three cases, by manufacturing tinctures himself, the exceptions being Tr. Aloes and Myrrh, Tr. Asafetida and Tr. Iodine. However, the cost of container has not been added to the manufacturers' product and that should also be added to the gain column. Alcohol was purchased at the cost of $0.39 per pint and the drugs used were standardized and tested, and purchased mostly in one-pound lots from jobbers. The time consumed in the manufacture was computed at $0.55 per hour. Mr. Heckerman accounts for the apparent loss on Tr. of Asafetida by the advance in price of Asafetida since the manufacturers' price list of tinctures was published. Tr. of Iodine would have shown a gain had the Iodine been purchased in one-pound lots instead of in quarter-pound lots.

These figures, then, represent the economic advantages of manufacturing tinctures even in a small way and prove again that the competition between manufacturer and retailer is not as one-sided as some of us believe it to be.

F. W. Nitardy, in a paper read before the Section on Practical Pharmacy and Dispensing of the A. Ph. A. at Denver, gives a comprehensive list of preparations, including elixirs, liniments, mixtures, ointments, powders, solutions, spirits, syrups, tinctures, vinegars, wines and waters, which are made at his establishment at a cost less than that for which they can be purchased from manufacturing houses. In arriving at the cost of manufacture of his preparations, Mr. Nitardy adds to the cost of the materials used, the cost of time necessary to make the preparation figured at $0.50 per hour, and a further 10 per cent of the total of these two items to cover "overhead charges." I have brought this list with me tonight and shall quote the cost of preparing one or two preparations of each class mentioned as compared with the price of the same preparation according to the manufacturers' catalogues.

	Cost of own make	Manuf. Cost A	Manuf. Cost B
Elixir Aromatic, U. S. P., per gal	$2.25	$3.30	$2.70
Elixir Digestive Comp., per gal	2.20	2.47*†	2.63
Liniment, Soap, U. S. P., per pint	.37	....	.56
Mixture, Glycyrrhiza Comp., U. S. P., per gal	1.05	....	2.25
Ointment, Iodine, U. S. P., per lb	.70	....	1.13
Ointment, Rose Water, U. S. P., per lb	.60	....	.94
Solution Iron and Ammonium Acetate, U. S. P., per pt	.12	....	.56
Solution Potassium Arsenite, U. S. P., per gal	.50	....	1.60
Spirit Ammonia, Aromatic, U. S. P., per gal	2.60	....	3.90
Spirit Nitrous Ether, U. S. P., per gal	3.50	....	5.00
Syrup Tolu, U. S. P., per gal	1.00	2.34	2.25
Syrup Yerba Santa, Arom., N. F., per gal	1.65	3.40	3.55
Tincture Opium, U. S. P., per pint	1.25	2.06	3.00
Tincture Vanilla, U. S. P., per pint	.88	1.38	1.35
Vinegar, Opium, per pint	.95	....	2.03
Water, Cinnamon, U. S. P., per gal	.40	....	2.06
Wine, Antimony, U. S. P., per pint	.18	.44	.49

*Not claimed to be official.

†Journal A. Ph. A., Vol. 2, No. 3, pp. 316-317.

The manufacture of fluidextracts has long ago been relegated to the manufacturer and as he has better facilities for recovering the alcohol used in their preparation, he can probably prepare and sell them at a price which would be lower than the cost of manufacture by the pharmacist. But here again some manufacturers have taken advantage of the average pharmacist's dislike for the practice of his profession. We see many fluidextract bottles with labels upon their back bearing printed formulas for the preparation of the tincture, the infusion or decoction, and sometimes the syrup of the drug in question. Owing to this circumstance the fluidextract bottle has replaced the Pharmacopœia in a good many stores. How an educated pharmacist can conscientiously prepare an infusion from the fluidextract of a drug which may have been extracted with strong alcohol is more than I can explain; it can hardly be lack of knowledge, so it must be mostly laziness.

Just as soon as the pharmacists as a whole will realize that in order to make the professional side of their calling pay, they must practice "real" pharmacy and let the physician know that they are practicing "real" pharmacy, just so soon will pharmacy come into its own.

I have tried to show in this paper that "real" pharmacy can be practiced to commercial advantage, and have given you proof of this fact by submitting the statistics made by men who are actually engaged in the practice of pharmacy. Furthermore, I have tried to point out how our preparations made in the store can be disposed of to commercial advantage, and if this paper will help in a small way to bring the pharmacists generally to the realization that ethical pharmacy can be put upon an economic basis it will have fulfilled its mission.

PACKAGING AND EXPLOITING COSMETIC PREPARATIONS BY THE RETAIL DRUGGIST.*

MELMOTH M. OSBORNE, PH. G.

This subject could not be exhaustively treated in a paper forming, as this does, only a part of an evening's work—it requires an evening alone, and so I can treat it only as to the general principles involved. Any one committed to them, however, will be apt to find the way out of any difficulties of detail.

The preparation of cosmetics for the purchaser, following their manufacture, should unquestionably show care for their appearance, wording of label and convenience for use. Assuming that the article itself is attractively prepared and is agreeable to use, it will have poor opportunity for success—or at least its climb up to that desirable point will be over more rugged ground—if it is not attractive in appearance.

And if it is attractive and desirable because of its virtue, it may never be sold a second time to the same customer if not put up conveniently.

Not infrequently an article will sell to one entirely unfamiliar with its virtues,

*Read before Philadelphia Branch A. Ph. A.

solely on its superior appearance—to which both label and container contribute—over another similar article not so attractive, but which may have more merit.

I have long ago given the subject of the label generally more than ordinary attention; indeed, compared with the average druggist, extraordinary. The average druggist, or "some of him," does not care to know, does not know, or at least doesn't care what his labels are like and is apt to imagine as artistic what, if large enough, might perhaps make a good circus poster—but label, never! Art is not a splurge of color or colors, nor is it an excess of engraved curves and lines The best art is simple, color is subdued. So with a label. Appropriateness is as applicable to labels—all labels—as to anything else. There are better ways of showing patriotism than by using a red, white and blue label.

Primarily and always the name of the article should be most prominent; always later, never first, should come the maker's name, and more appropriately and less conspicuously a description and directions, and last the maker's name and address.

No more should be put on the label than is necessary to concisely state the *facts*. Enlarging on imaginative properties not possessed by the article, is only another way of prevaricating. Unless an artist, or one with decided artistic taste, designs the label, don't use colors. A beautiful face or some rich, soft, but never gaudy colors, may appropriately be used for some cosmetics, but if they are not almost perfect leave them off. A soft-toned paper will often give a fine effect as a background to neat printing, in black, brown or other color, and be far superior to any attempt at something artistic or showy which falls short of a high standard, and many of the customers who almost alone use cosmetics will see it very quickly. A neat, appropriate label is just as impressive in its way as good stationery.

Several points must be considered in the container besides the size, whether box, bottle or jar. Its appearance also counts for much. It will often be seen before the label on it, and no matter how good the label, it will detract from effect if not in agreement with it. It is not wise, however, to give too much jar and too little contents. The customer gets tired of paying for jars of no use when empty. Simplicity is appropriate here, too. Occasionally an attempt at originality is highly successful from that point of view—but a failure from every other. Originality along good lines is desirable, of course. The opal jar is justly a favorite, as is the aluminum lid.

The bottle has, probably, more variety given to it than the jar, but the same observations apply to it. A very deeply panelled bottle means charging a good price for a poor bottle and it always seems to me in such cases poor quality. The law should forbid putting out bottles that pretend to hold more than they do. I have rarely seen a handsome panelled bottle. That, of course, is only an opinion, but I do think a bottle entirely without panels, of good glass and either round or square and well proportioned, will show the contents better and present a handsomer appearance than any panelled bottle ever made.

Containers should be convenient. If jars, they should be very wide-mouthed and not too deep, so that all the contents may be reached. If bottles for a thick, creamy substance, narrow necks should be avoided. If corks are used they should be of the best quality as they will be frequently handled before the bottle

is exhausted. It is poor policy to use a poor cork that breaks the first or second time used or to use a short one forced in to level of lip, unless an extra cork is provided. Where possible, a sprinkler top should be used. Where the material is suitable the tube has proved very desirable in many cases, being convenient, and preserving the contents satisfactorily, but it cannot be made as attractive as other containers, this being practically limited to the label.

For the retail druggist who puts up a cosmetic for sale only in his own place, I think a carton is a mistake. He can display the article much better uncovered. It is no doubt common experience that the jar or bottle must often be removed from the carton to show customers, and I think it is a mistake to seal a jar of cream or ointment so that the contents cannot be examined, especially with a new article, the reputation of which has still to be achieved. I have known a choice of another article to be made in consequence. The carton, however, is very convenient and useful in practice for distribution purposes, in large quantities, saving time in handling, and breakage, and space in packing. But all that applies to the label, as to neatness and appropriateness, applies to the carton which is temporarily seen in display in places of the container itself, except, of course, in the cases where it is used only as a packer for protecton.

Unquestonably, in my mind, the pharmacist should study *every point* to succeed in replacing the numerous preparations on the market by his own, for they *should* be better, and with good articles, the composition of which he knows, he has talking points in every detail from the purchase of the raw material to the wrapping of the product ready to hand to the customer, and while he is talking with his mouth the articles should be talking and backing him up by their appearance, proving the adage that "deeds are greater than words." The many on the market are made to sell—so are the pharmacist's—but with the difference that he is there to stand back of them and known in his community and his character and his goods should both be on a par—of the highest. No one knows what the ordinary market goods may be, we all know how fraudulent *some* of them are.

Circumstances alter the conditions of exploiting an article of any kind, and every community has its peculiarities which have more or less bearing on what should be done, nevertheless there are general principles to follow, applicable to all cases. The one aim is to reach the desired customers, interest them and get them to make the first purchase, when if the quality—it always comes back to that—is there, future purchases take place automatically and lead to their friends becoming interested.

A good display in the drug store or window—preferably both—is seen by everybody entering. That has a double advantage. It tells that you have it and what it looks like, besides, many see it who have no use for it, but will tell others.

Sampling with exact duplicate of the actual article, except as to size, is an excellent and superior way of advertising it, but it is expensive and will not pay except the community in which it is done is large enough to warrant the double cost of the samples themselves and their delivery, and it is wasteful unless some system is adopted which insures practically all of them being delivered to persons likely to use such an article. Delivery at doors, of unaddressed articles means

much waste through the gross carelessness and indifference of the ordinary messengers used, as well as their being taken by servants or others who may receive them. An article addressed to a person who knows the sender or knows of him, or that he is in the immediate neighborhood, will be more impressive than if it was merely left at the door and got into her hands by chance more than by good management. The parcel post seems an excellent way to overcome this trouble and thus make a direct appeal to the party desired. It is not at all necessary to limit the list to known customers. A little effort constantly kept up for future use, will produce a list sufficiently selected from your neighbodhood to make you reachable, and yet not be wasteful to you.

A well-worded, short circular, accompanying the sample and showing why *you* are better able to make such an article and that you stand by it, will greatly help But a check should be kept on results, showing who do not respond, and later another sample be sent.

Ordinarily it is not advisable to send several kinds of samples at once. Better separate them by short periods, as it makes more impression. If the sample reaches the right party—that is, one likely to use such an article—and is liberal enough in quantity to allow fair trial, this is one of the very best methods of advertising, provided always the article is right from beginning to end.

Sampling can be advantageously done directly to customers by enclosing with other articles, by personally asking them to try it, and by leaving the samples in a convenient place to be taken by any one, but this latter way is apt to be wasteful, as many people will take samples because they cost nothing, not because they want them.

When a customer asks for a certain article give it, but you may also give your sample. When they don't know what they want give yours if you know it is right.

Each one must decide for himself whether he desires to make a special push on such an article and whether newspaper advertising will pay for its cost, which ordinarily is considerable, and unwarranted unless the article has real merit, the advertiser brains and the maker capital, but this takes me outside my limit which confines me to the retail druggist. Local papers in the territory covered by the maker may, however, be used advantageously and at moderate cost.

Many large manufacturers of cosmetics have learned the lessons I am trying to impress and those that have learned it best are among the leaders of the world in their line. The French manufacturers probably lead them all in beauty of labels and packages, as well as quality. But there are a few in this country who are doing most excellent work in beautifying their packages.

The pharmacist cannot assume the expense they do and need not, for local purposes, yet he can turn out packages neat, but not gaudy, attractive and convenient.

It might have been interesting to illustrate with examples, but neither my time for preparation nor yours now would permit this.

I have assumed that few, if any, retail druggists would expect to do a very widely extended business in such preparations, beyond their own territory. If that is done at all successfully it will mean all he can handle in addition to his

other regular business. When he goes beyond that he becomes a wholesale manufacturer and the exploiting is a far different matter. But not a few of the best known manufacturers are realizing the value of the personal appeal referred to above and most druggists must be familiar with the begging appeals made to them for their mailing lists. Since it is noticeable, that the best of them are giving much attention to appearance, size and convenience of their packages, there is little use in a retail druggist undertaking to put out such preparations unless he can equal or surpass the best on the market.

DRAWING POWER OF THE WORDS "DRUG STORE."

Commercialism in pharmacy does not exist to an extent to make public references to it frequent.

This may be a startling declaration, but one, we believe that no one can successfully deny. It should be placed alongside of another unequivocal statement we have made, namely, that pharmacy is a profession. Conducting a drug store is not practicing pharmacy. The over-commercialization of the business carried on under a drug-store sign is the thing that is in the minds of people who inveigh against what they call commercialism in pharmacy. Let us get our basic facts well in mind, and then we shall the better be able to go into an intelligent discussion of side issues.

There are two separate and distinct reasons for the recent very noticeable growth of the commercial side of the drug business. One is the desire of men in the drug business to make more money; the other is the desire of men to make more money by going into the drug business. In the case of druggists already in the business, their commercial trend is the result of a natural growth; with the others it is a wish to take advantage of a situation whch has presented itself with a certain degree of suddenness. In other words, men with the commercial instinct highly developed, seeing that druggists who possess that instinct and are guided by it have made a success, have determined to put more of the commercial feature into drug stores and make a larger success. So far as the real drug end of the business opened by some of these commercially minded men is concerned, it might just as well give place to some other line, but for the fact—and this is the point we desire to bring out—that there is something about the words "drug store" which seems to have a magic drawing power with the public.—*Druggists' Circular.*

Of General Interest

ORGANIZATION OF A NATIONAL FOOD TRADES CONFERENCE.

At the close of the Convention of the National Wholesale Grocers' Association at Atlantic City during the week of June 2d, a new and important member of the family of food control associations was born—the National Food Conference. Its aim is to unify the efforts of all the leading food trade associations in the common cause of promoting uniformity of food legislation.

This organization was called by the legislative committee of the American Specialty Manufacturers' Association for the purpose of discussing plans for bringing the common interests of all lines of food production and distribution in the way of food legislation into a common effort for reasonable laws. There is less opposition to laws affecting food in themselves than there is diversity of laws. It matters little to the food producer what the law is—he can adjust details in that respect with little trouble—so long as the Federal laws and the State laws agree. If he must have differently prepared products for each State, if the labels must be different in one State from another, the process of compliance is very cumbersome, expensive and difficult. So, with uniformity as the keynote, the convention was called. It comprised the following representation:

American Specialty Manufacturers' Association—J. E. Linihan, Louis Runkel, A. C. Monagle, William Beverly Winslow, C. W. Dunn.

National Wholesale Grocers' Association—William C. Breed, Dana T. Ackerly, D. C. Shaw.

National Retail Grocers' Association—John A. Green, C. E. Bemert, G. Reddish, Secretary of the Denver (Col.) Retail Grocers' Association, editor of the Denver Grocer; S. Westervelt.

National Canners' Association—F. E. Gorell.

National Confectioners' Association—H. W. Hoops.

Cocoa and Chocolate Manufacturers' Association—Maurice Fieux, also S. S. Marvin, President Pennsylvania Chocolate Co.

National Coffee Roasters' Association—G. W. Toms.

National Association of Glue and Gelatin Manufacturing—Rufus W. Powell.

Flavoring Extract Manufacturing Association—W. M. McCormick, S. F. Irwin, of L. H. Parke Co.

Oyster Growers' and Dealers' Association of North America—Henry C. Rowe, J. R. McCleskey.

American Manufacturing Association of Products from Corn—W. P. Cutler, T. B. Wagner.

National Association of Ice Cream Manufacturers—W. J. Carlin, E. B. Lewis.

Mincemeat Association—Craig Atmore, J. E. Brick, H. C. Gutchers, W. B. Cherry.

There were also present: Walter E. Coe, Commissioner from Connecticut for the Promotion of Uniform State Laws; W. D. Waller, J. G. Wood, E. O. Grosvenor, F. A. Ledgerwood, J. C. Dow, A. C. Withington, D. C. Shaw, Victor Garrett, Andrew Ross, T. B. McGuire, T. J. Riordan, J. G. Gilfillan, T. G. Aulsbrook, S. A. Bixby, W. H. Lipe.

The National Association of Macaroni and Noodle Manufacturers sent a letter of approval and offering co-operation.

The conference was called to order by Louis Runkel, Chairman of the Legislative Committee of the American Specialty Manufacturers' Association. John A. Green, Secretary of the National Retail Grocers' Association was elected Secretary.

PLAN FAVORED BY ALSBERG.

After reading his address, the Chairman spoke of the conversation he had had with Dr. Carl Alsberg, Chief Chemist of the United States Department of Agriculture, favoring the uniformity of food laws, and

*Reprinted from the *Journal of Commerce* (N. Y.).

the honest cooperation of manufacturers of food products to attain such a uniformity. Letters were read from various State Food Commissioners—H. E. Barnard, State Food and Drug Commissioner of Indiana; S. E. Strode, Dairy and Food Commissioner of Ohio; Geo. B. Flanders, counsel, Department of Agriculture, State of New York; Hubert F. Potter, Dairy and Food Commissioner, State of Connecticut.

The following resolution was adopted unanimously:

"WHEREAS, Food control legislation, general and special, has been enacted by Congress and by the legislatures of all the states, and is now being actively enforced, and

"WHEREAS, Many manufacturers of and dealers in food products do an interstate business and are, therefore, subject to both such National and State regulations, and

"WHEREAS, This conference has considered the need for the value of uniform Federal and State laws relating to the adulteration and misbranding of food products, and

"WHEREAS, The uniformity of the food laws is recommended by the Commissioners on Uniform State Laws and by the American Bar Association, therefore, be it

"*Resolved*, That this National food trades conference hereby reaffirms its belief in food control legislation, which shall deal justly and equitably with the interests of the consumer and the trade as beneficent and necessary legislation, and be it further

"*Resolved*, That this conference hereby earnestly recommends that such food control legislation, National and State, be uniform, believing that such uniformity will equally benefit the consumer and the trade."

DATA ON NET WEIGHT LAW.

Charles Wesley Dunn, attorney for the American Specialty Manufacturers' Association, spoke briefly on the regulations to be promulgated under the national net weight law, requiring package food to be labeled to indicate the net contents; he pointed out the necessity for the early submission of the necessary data for these regulations by the manufacturers and explained that it is the intention of the Department of Agriculture to obtain as complete data as possible from the manufacturers, to conduct experiments and tests on their own initiative and to afford hearings to the trade when necessary. On motion of Mr. Dunn it was unanimously voted that a uniform form, which he then submitted to the conference, be suggested by this conference to the various food trades organizations for the preparation of this data. He pointed out the value of such an uniform plan of collecting the data and the facility it would afford the national net weight committee in the preparation of the regulations.

The chairman of the conference appointed a committee of seven members to meet in the near future and to consider the advisability of cooperation between the various food trades organizations relating to the uniformity of the food laws and to devise some method of such cooperation, if sufficient of such organizations approve the plan, to report the same back to another meeting of this conference called for this purpose.

<>

NEW ENGLAND LETTER.

ERNEST C. MARSHALL, PH. G.

CONNECTICUT'S NARCOTIC LAW.

In order to be in the prevailing fashion Connecticut has recently put into effect its up-to-date narcotic law in the attempt to make that "Land of steady habits" steadier. The provisions of its law are similar to those of other states and to the proposed narcotic law which awaits the action of the National Senate at the capital. There is really something pitiful to me in the way in which leading druggists assist in the passage of these laws to prevent the sale of narcotics—laws which in their essence throw discredit upon the profession. I presume it is largely through the fear that if they show themselves antagonistic to the passage of such laws, they will expose themselves to the suspicion that they are of the liquor-vending, dope-selling class of druggists. Personally I believe all such laws foolish and unproductive of any good to the community. They are as silly as the laws of Connecticut and of Massachusetts passed in "the good old colony times" against the serious offense of lying, which offense appeared to be as common in those days as it is at present, or the law of the former State against lechery, which law resulted in Edmunds being whipped, Williams standing in the pillory and Starke being branded in the cheek, forced to pay a fine and made to marry one Mary Bolt, all this for doing offense with the said Mary, who the next year was whipped and banished for misconduct with another man. None of these laws prevented the growth in

the community of the evils against which they were directed. But poor mankind goes blunderingly along repeating the errors which the test of time might have shown to them, if they were not so wilfully blind, the folly of their courses. Sumptuary laws have been in existence since early Roman times, particularly those laws regulating the dress of women, and Puritan Massachusetts had a law preventing the use of "short sleeves whereby the nakedness of the arm may be discovered in the wearing thereof." The only result of such laws seems to be that we will soon have to pass a law to prevent the wearing of slashed and short skirts. Such is "the blindness of men's minds and the stubbornness of their wills," to use the language of the General Court of Massachusetts, that it seems as though it was only necessary to tell persons they shall not do a certain thing, to make them seek for some means to do it at once, and so it is that the very laws intended to prevent and oppose evils seem to increase them. In Prohibition Kansas, I am informed on the authority of a professor of one of its universities, that there is not the least difficulty in securing all the liquor one wants, except that one must know where to go to get it ,and I know the same thing is true of Prohibition Maine. Then is it not folly to pile law upon law, "Pelion on Ossa," in the vain attempt to regulate what it is impossible to regulate? By the provisions of the Connecticut law none of the drugs enumerated in the law,—a most liberal list,—can be sold except upon the prescription of a licensed physician, or by any one not a licensed pharmacist. Said prescriptions must bear the date of their writing and are invalid if written more than five days before being presented for preparation. They may only be filled once, shall be kept on a separate file, and the date of the sale, the name and address of the purchaser, and the name of the person making the sale must all be recorded. Believe me, they should have also required the personal description, with Bertillion measurements and thumb-prints of the purchaser and the seller, for otherwise how will they absolutely guard against fraud and misrepresentation and I shudder at the effect of such misrepresentation upon the morals of the State. Now, what will be the effect of such stringent regulations as those imposed by this law? Physicians, after being disappointed in securing a required remedy, because forsooth the date was not properly placed upon the prescription, or they have misspelled the name of the medicine or something or other, will cease to write prescriptions and will become dispensers, and heaven knows there are enough of those without adding to the number. All such laws should be opposed with all the force which druggists can muster,and if they will but exert themselves they can get together a mighty force, —not because they wish to oppose good legislation, but because they are opposed to vicious legislation which is inoperative and inefficient, and can only bring contempt upon the law-making power. It will be impossible for the United States to prevent the sale of cocaine and other drugs by its proposed law, even by the expenditure of a dollar for every grain sold unlawfully, as it was for Mrs. Partington to sweep back the rising tide with her broom. Desire will be stimulated by the difficulty of securing the drugs and that desire will in the majority of cases be satisfied as certainly as that Mrs. Partington got her feet wet in her fruitless labor. The good results from such legislation are absolutely none, and the evils it is intended to correct will be increased and exaggerated. A French marquise is reported to have exclaimed on drinking a glass of pure spring-water, "O, how much more of this would be drunk, if it were sporty to drink it," and, in so saying, she expressed in a terse manner the attitude of people toward the things which are forbidden them. There is a vein in most men and women which impels them to be a little sporty; to get out of the harness at times and let loose.

I thoroughly believe that there would be no more drunkards if the sale of liquor was entirely unrestricted, and that all attempts to restrict by rigorous law the sale of narcotic drugs will absolutely fail to lessen the number of so-called dope fiends in the country while imposing upon the already overburdened druggist a vast amount of useless trouble.

The druggists of Fitchburg, Mass., have been agitating the question of closing their stores on Wednesday afternoons during the summer months, in accord with the practice of many of the other retail dealers of that city. The arrangement is said to have been defeated because of the refusal of two of the Main street druggists to agree to it. This is decidedly a matter for regret, for it must

be apparent that every one concerned would be benefited if some relief could be had from the exacting hours of the drug trade. No valid reason now exists for drug stores to be open all of the time for the service of the public, and the benefit which would come to clerks and proprietors from the rest of a part of one day in the week would much more than compensate for any loss of business caused by closing the stores. It is hoped that the druggists of Fitchburg may be able to induce their recalcitrant brothers to join with them in so beneficent an arrangement and that from Fitchburg the movement may spread throughout the country.

MAINE.

Augusta. Nathaniel Johnson and J. Henry Gregoire have purchased the business of Bowditch, Webster & Co., at 220 Water street, and will conduct the business under the old name. Mr. Johnson has been with the firm of Bowditch, Webster & Co. since 1893, and Mr. Gregoire has been in business in this city for some twelve years.

Portland. The annual outing of the Cumberland County Pharmaceutical Association was held on July 31 at the Mitchell House in Scarboro. About 44 members were in attendance. The committee of arrangements was composed of the President, Frank H. Powers; Secretary E. W. Murphy, and Treasurer James A. Broe. A shore dinner was served and was followed by athletic contests.

Waterville. W. R. Jones sustained a loss of about $2000 in a fire which almost destroyed the DeGruchy Co.'s block.

NEW HAMPSHIRE.

Dover. J. Edward Vickery was severely injured while riding in the car of Dr. George E. Tolman, by the car coming into collision with the car of C. C. Wilbur of Newton, Mass. Mr. Vickery's nose was broken and he received a cut on one leg which required five stitches to close.

VERMONT.

Mason G. Beebe was the representative of the State Board of Pharmacy at the Convention of the A. Ph. A. Andrew B. Anderson of Swanton represented the State Association of Vermont at the Convention of the A. Ph. A., afterward going to Cincinnati to the Convention of the N. A. R. D.

At the examination held by the State Board on July 9, five candidates received certificates of registration as skilled pharmacists and two received certificates as assistant pharmacists. The board also cancelled nine certificates because of deaths and other reasons.

Baltic. V. B. Anderson was found guilty of violation of the liquor law and was fined $75 and costs, the total of which amounted to $99.64, on the 14th ult.

MASSACHUSETTS.

Boston. Louis K. Liggett was operated upon for appendicitis at the Corey Hospital on July 6th. Mr. Liggett is the President of the United Drug Co.

Lawrence. A. F. Ryder is erecting a block at the corner of Essex street and Broadway, which he expects to occupy with an up-to-date store about the first of September.

Lynn. James B. Small, one of our veteran druggists, is to be married in September to Ruth S. Wood, a prominent club woman of the city. Miss Wood is Secretary of the Outlook Club and Vice President and Secretary of the Houghton Horticultural Society.

Lowell. It is reported that A. M. Dows & Co. have purchased the store known as the Carleton & Hovey store in this city.

Salem. D. M. Foster, formerly of Lynn, has opened a store on Essex street, near the Salem Institute.

New Bedford. Charles W. Brown has leased the store on the corner of Purchase and Maxfield streets and will make extensive alterations in the property before opening it as a modern pharmacy.

RHODE ISLAND.

Providence. The West Pharmacal Co., composed of Daniel E. Smith, W. F. Smith and Thomas J. Dorney, has been incorporated with a capital stock of $25,000, divided into shares of the par value of $10 each.

The State Board of Pharmacy having cancelled several certificates of druggists for failing to pay their registration fee before July 1, were obliged to take action looking to the reinstatement of such pharmacists who offered apologies and requested such consideration.

Woonsocket. Berard & North opened their new store in the Daignault block on Monday, July 21.

CONNECTICUT.

Hartford. The Riker-Hegeman Co. opened a new store here on Saturday, July 19,

at 851 Main street. According to the figures given out by the managers the store had 11,221 customers on this day and the receipts of the store totalled the sum of $2500. This is said to be the eighty-eighth store of this chain-store aggregation.

The Alderman Drug Co., of which the managers are A. P. Alderman and C. P. Sheldrick, opened their new store on the corner of Main and Pearl streets the latter part of July. The store is one most modern in every way and the company is to be congratulated upon its appointments and general appearance. A Lippincott fountain of most appropriate design is one of the features of the new store.

New Haven. Mr. James J. Eagny, for 22 years in business on Grand avenue, is now making an extensive tour of Europe.

Southington. Jackson, the druggist, of Cheshire Center is building a new store in Southington.

Stratford. Alexander St. John has purchased the drug store of William B. Tuttle and will unite its business with his business at the location of the Tuttle store.

Naugatuck. David Waltman has purchased the drug store of E. Whitlen, located at the corner of North Main and Prospect streets, Union City.

Waterbury. C. B. Stricklin has purchased the Roberts store at 463 W. Main street.

Who among druggists has not smiled at the trite sign "Pure Drugs and Chemicals," or its companion, "Prescriptions a Specialty"? Yet these signs once meant just what they said, and if nowadays they mean little or nothing it is solely because the owners of the signs have not lived up to them. People are learning to discriminate, and whenever they find signs or advertisements that are meaningless they soon take their trade to a store where the signs do mean something. About the poorest investment that a druggist can make is paying out money for advertising space if he is not willing or capable of living up to every promise therein made.

One of the surest ways of destroying the value of advertising is poor service, and this definition includes a multitude of faults. No matter how cleverly written be the advertisement and despite the actual bargains given, if customers are met with indifferent, grudging service, if things are handed out to them with the air of selling the thing and getting done with the job, if the sale is made in such a manner as to impress the customer with the idea that as soon as the druggist has got his money he has no more interest in him, then this advertisement of the store itself more than destroys the value of the printed advertising used. In the final analysis of its value, advertising is something to induce other people to buy something the advertiser has to sell, either goods, service or brains. The druggist is not in that class which depends upon catching new "suckers" every minute. His business must be built up from the solid foundation of confidence and good service, and if his advertising is contradicted by his service his trade must depend on his cleverness in attracting transient purchasers. Every great retail business of today started in a small way, and every one which succeeded has succeeded because it lived up to its advertisements.—*American Druggist.*

Editorial Notes and Announcements

JAMES H. BEAL, Editor.....Scio, O.

All communications for insertion in the JOURNAL, or respecting advertising should be sent to the Editor.

The Association does not accept responsibility for the opinions of contributors. Offensive personalities must be avoided.

Under the rules of the Post Office the JOURNAL can be regularly mailed only to bona-fide paid subscribers. Subscriptions and association dues should be sent to the Treasurer, H. M. Whelpley, 2342 Albion Place, St. Louis, Mo.

Requests for back numbers, and claims for missing numbers should be sent to the Editor.

Claims for missing numbers will not be allowed if sufficient notice has not been given of change of address, and in no case if received later than sixty days from the date of issue.

<>

REPRINTS.

If the request is made at the time copy is submitted, authors will be furnished with not to exceed 50 reprints, without cover, of papers accepted for publication in the JOURNAL.

Larger numbers of reprints will be supplied by the Stoneman Press Co. at the following prices, provided the order is received before the type has been distributed:

100 copies, 4 pages, no cover, $2.50, with cover, $4.50.

200 copies, 4 pages, no cover, $3.00, with cover, $5.50.

50 copies, 8 pages, no cover, $2.75, with cover, $4.50.

100 copies, 8 pages ,no cover, $3.50, with cover, $5.00.

200 copies, 8 pages, no cover, $4.50, with cover, $6.50.

50 copies, 12 or 16 pages, no cover, $4.00, with cover, $5.50.

100 copies, 12 or 16 pages, no cover, $5.00, with cover, $6.50.

200 copies, 12 or 16 pages, no cover, $6.50, with cover, $8.00.

Orders for reprints may be sent either to the Editor, or to the Stoneman Press Co. Columbus, Ohio.

WAMPOLE CONTRIBUTION TO PROCTER FUND.

Notice has just come to the Secretary's office of a contribution of One Hundred Dollars to the Procter Memorial Fund, made by Henry K. Wampole & Company of Philadelphia.

<>

IOWA COLLEGE STUDENT WINS MEMBERSHIP PRIZE.

William Karl Kallman, 432 West Third Street, Davenport, Iowa, won nomination for membership and one year's dues in the A. Ph. A. in the competitive examination in the recognition and description of organic drugs at the University of Iowa College of Pharmacy. The prize was awarded by Professor W. J. Teeters.

<>

UNIVERSITY OF NEBRASKA INCREASES REQUIREMENTS.

With the school year beginning in September the University of Nebraska will require a four-year (30 point) High School course of all students who matriculate in Pharmacy looking toward a degree. Conditional registration is permitted on 28 points, the condition, however, must be made up before graduation. This makes the requirements to study Pharmacy the same as for entrance to any other department of the University and gives Pharmacy the dignity of university standing.

<>

THE NEW FOOD TRADES CONFERENCE.

Stimulated by the example of the national organizations in forming a National Drug Trade Conference, the various organizations connected with the food trade have also formed a "Conference," the initial meeting of which was held at Atlantic City during the week of June 2. The announced purpose of the new organization is to work for uniform-

ity in food legislation and in the enforcement of such legislation.

There are many points upon which the interests of the food trade touch the interests of the manufacturers and distributors of drugs and drug products, and no doubt we shall hear more of the new Conference in the future.

An account of the proceedings of the organization meeting appears in another column.

<>

ILLNESS OF LOCAL SECRETARY BURGE.

By a most unkind stroke of fortune Local Secretary James O. Burge was taken ill just on the eve of the opening of the Nashville meeting, and thus was unable to attend the sessions of the convention for which he had labored so unremittingly to arrange for.

To the delight of the members, however, Mr. Burge was able, before the end of the convention, to appear in the lobby of the hotel to receive the sympathy and good wishes of his friends.

The duties of the Local Secretary were ably discharged by Professor E. A. Ruddiman, who assumed the burden in addition to those of his own special committee.

<>

ENTERTAINMENTS AT THE NASHVILLE MEETING.

The women of Nashville proved themselves charming hostesses for the visiting ladies of the A. Ph. A. The plans for entertainment had been so carefully made that every event was thoroughly enjoyed.

A committee of ladies was on hand as early as Sunday to welcome the arrivals and were as careful in looking after the comforts and pleasures of their guests as if they were entertaining in their own homes.

The President's reception was held on Monday evening in the loggia of the Hotel Hermitage which presumably all visitors attended with a large delegation of the local druggists and their families.

The morning of each day was left open for the ladies to do their shopping. On Tuesday evening a theater party was given for the ladies at the Orpheum Theater, the play being "The Man on the Box."

On Wednesday afternoon, from four to six o'clock, a reception for the ladies was given at the Noelton Country Club, the trip to the Club being made by trolley.

On Thursday afternoon the entire association was given a trolley ride by the Board of Trade visiting the various points of interest in the city. A stop was made in Centennial Park, where a group picture was taken at the Parthenon. Following the trolley ride a box luncheon was served on the campus at Vanderbilt University. At eight o'clock the assemblage gathered in the chapel where they were entertained delightfully with a concert by the Fisk Jubilee Singers.

Friday afternoon the sessions were omitted entirely that all might go on the trip to the Hermitage, the home of President Jackson, which was provided by the Industrial Bureau of Nashville. The trip was made by train and tallyho. In addition to inspecting the Hermitage, there was time for a pleasant visit to the gardens and grounds. Representatives of the ladies in charge of The Hermitage were there to give us historical facts and notes of interest in regard to the place. Mrs. Lawrence, the granddaughter of General Jackson, was also present to receive the guests.

This completed the program as arranged, which was thoroughly enjoyed by all taking part in it, but one of the most enjoyable features for the ladies of the convention were the many quiet visits among themselves, the making of new friends and the meeting of old acquaintances, all of which was added to by the charm and graciousness of the Nashville ladies who untiringly devoted themselves to the entertainment of the visiting women.

Through these pleasant associations the Nashville Convention will always live in the memory of A. Ph. A. women.

ANNA G. BAGLEY.

ISRAEL SCHWARTZ.

JOSEPH CARUSO.

BROOKLYN COLLEGE GRADUATES WHO WON A. PH. A. NOMINATION PRIZES.

UNITED STATES PUBLIC HEALTH SERVICE.

T. V. O'Gorman, Pharmacist. Granted 30 days' extension of annual leave on account of sickness from May 6, 1913. Granted 30 days' annual leave from June 5, 1913. June 18, 1913.

F. H. Southard, Pharmacist. Relieved from duty at Fort Stanton, N. M., and directed to proceed to Cincinnati, Ohio, and report to Passed Assistant Surgeon W. H. Frost for duty in the investigation of the pollution of navigable waters. June 28, 1913.

H. D. Leech, Pharmacist. Relieved from duty at the New Orleans quarantine station and directed to proceed to Fort Stanton, N. M., and report to the medical officer in charge for duty and assignment to quarters. June 28, 1913.

C. C. Cannon, Pharmacist. Relieved from duty at the Marine Hospital, Chicago, Ill., and directed to proceed to Fort Stanton, N. M., and report to the medical officer in charge for duty and assignment to quarters. July 8, 1913.

J. A. Wolfe, Pharmacist. Granted 30 days' leave of absence from August 4, 1913. July 8, 1913.

H. D. Leech, Pharmacist. Directed to proceed to the Fort Stanton Sanatorium and report to the medical officer in charge for duty and assignment to quarters. August 18, 1913.

W. F. Macdowell, Pharmacist. Granted 23 days' leave of absence from August 18, 1913. August 19, 1913.

E. S. Maguire, Pharmacist. Granted 30 days' leave of absence from August 16, 1913. August 19, 1913.

E. M. Holt, Pharmacist. Granted 27 days' leave of absence from August 15, 1913. August 19, 1913.

RESIGNATIONS.

Pharmacist Harri D. Leech resigned, effective July 9 1913.

Pharmacist Charles H. Irwin resigned, effective August 6, 1913.

Changes of Address

All changes of address of members should be sent to the General Secretary promptly.

The Association will not be responsible for non-delivery of the Annual Volume or Year Book, or of the JOURNAL unless notice of change of address is received before shipment or mailing.

Both the old and the new address should be given, thus:

HENRY MILTON,
From 2342 Albion Place, St. Louis, Mo.
To 278 Dartmouth St., Boston, Mass.

Titles or degrees to be used in publications or in the official records should be given, and names should be *plainly* written, or typewritten.

<>

DAHL, MARCIUS,
From Columbus, Ohio,
To residence unknown.

TYSON, LESTER R.,
From St. Louis, Mo.,
To Cheyenne Wyo.

LANGENHAN, H. A.,
From 901 University Ave., Madison, Wis.,
To Chemistry Bldg., University of Wisconsin, Madison, Wis.

RUSSELL, C. WILCOX,
From residence unknown,
To School of Mining, Queen's University, Kingston, Ontario.

MASON, JOHN G.,
From residence unknown,
To Behrens' Drug Co., Waco, Tex., General Manager.

ARMSTONG, C. A.,
From Flatt River, Mo.,
To Bonne Terre, Mo.

GOLDSTEIN, JACOB,
From residence unknown,
To Care The Savoy Pharmacy, Cairo, Egypt.

MURPHY, GEO. E.,
From Winthrop, Mass.,
To residence unknown.

CANNON C. C.,
From Chicago, Ill.,
To Ft. Stanton, N. Mex.

EICHER, BENJ. L.,
From Chicago, Ill.,
To residence unknown.

LAMONT, WM. H.,
From Kansas City, Mo.,
To Care Meyer Bros. Drug Co., St. Louis, Mo.

BERKOWITZ, MORRIS E.,
From residence unknown,
To 410 Chestnut St. Philadelphia, Pa.

MOORE, FRANCIS,
From Bismarck, N. Dak.,
To residence unknown.

CONQUEST.

Sometimes when you are worn and weak with the struggle; when it seems that justice is a dream, that honesty and loyalty and truth count for nothing, that the devil is the only good paymaster; when hope grows dim and flickers, then is the time when you must tower in the great sublime faith that Right must prevail, then must you throttle these imps of doubt and despair, you master yourself to master the world around you. This is Conquest; this is what counts. Even a log can float with the current, it takes a man to fight sturdily against an opposing tide that would sweep his craft out of its course. When the jealousies, the petty intrigues and the meanness and the misunderstandings in life assail you,—rise above them. This is Conquest. When the chance to win fame, wealth success or the attainment of your heart's desire, by sacrifice of honor or principle, comes to you and it does not affect you long enough even to seem a temptation, you have been the victor. That too is Conquest. And Conquest is part of the royal road to Happiness.—*William George Jordan.*

CHARACTER VERSUS REPUTATION.

"Reputation is what men say you are; character is what God knows you are.

"Reputation is seeming; character is being.

"Reputation is your photograph; character is your face.

"Reputation is manufactured; character is grown.

"Reputation is what comes over you from without; character is what rises up from within.

"Reputation is what you have when you come to town; character is what you have when you go away.

"Reputation is what you need to get a job; character is what you need to keep one.

"Reputation is what is chiseled on your tombstone; character is what the angels say about you before the throne of God."

It may not be within the power of every man to secure reputation, but it is, happily, within the power of everyone to have character. It may be built up stone by stone. It comes by forming ideas in the mind and carrying them out in practice. It is much easier to drift, hence character-forming is, in a sense, "work." But it is not hard work, though it does demand daily and hourly attention. A man must watch his thinking with care, and the doing will then be fairly easy.—*Ernest Wray Oneal.*

GETTING READY FOR NEXT YEAR'S MEETINGS.

Assocation meetings are over for this year, but it is time to begin getting ready for next year's meetings now. The real problem for most druggists is how to meet the expense of attendance, and no one need be ashamed to admit that this expense is a real reason why he does not attend association meetings, but if a little economy be practiced and a determined effort made it will be easy for every druggist to attend some meeting. A few dollars put aside monthly between now and next summer will provide the means for attendance, a hundred dollars will take one a long way, and no one need fear the expense of social display, for druggists are not usually "malefactors of great wealth" and avoid high-priced hotels and display. Begin saving now; it will be the best and most profitable saving one can do.—*American Druggist.*

DISLOYALTY.

That is the worst sin, in my estimation, there is. It seems to me that God forgives everything in the world except disloyalty. You talk about Judas Iscariot, you talk about Benedict Arnold, and you say they were traitors. They were not committing any great crime—greater in degree, perhaps, than you are and I am when we are disloyal to the people who are paying us for our service and giving us an opportunity to make good in life. It's the thing you want to avoid more than anything else, as it destroys the very integrity of the individual.—*The New Idea.*